

**Albany, NY Chapter
American Statistical Association
February 24, 2016**

**Estimating the Prevalence of
Substance Use and Mental Health
Disorders: Using the National Survey
on Drug Use and Health (NYDUH)**

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National Survey on Drug Use and Health

- Annual, since 2002
- January through December
- Civilian, non-institutional population
- In-home, Computer-assisted Interviewing
- Ages 12 and older
 - 1/3 Age 12-17
 - 1/3 Age 18-25
 - 1/3 Age 26+
- c. 70,000 respondent per year

NSDUH Sampling Design (2002 - 2013)

- Independent, multi-stage area probability sample for each of the 50 states + D.C.
- State-defined sub-state areas consistent with planning under SAMHSA Block Grant funding
- Eight large states (inc. NYS) with target sample $n=3,600$ per year; smaller states with target sample $n=900$ per year
- Divided equally among three age groups (12-17; 18-25, 26+)

NSDUH Sampling Design (2014 - 2017)

- Independent, multi-stage area probability sample for each of the 50 states + D.C.
- State-defined sub-state areas consistent with planning under SAMHSA Block Grant funding
- Twelve large states with various target sample sizes (NYS n=3,300) and smaller states with target sample n=960, thus improving precision of estimates
 - Age 12-17 – 25%
 - Age 18-25 – 25%
 - Age 26-34 – 15%
 - Age 35-49 – 20%
 - Age 50+ – 15%

NSDUH Response Rates (2013-2014)

- Screening Response Rate (SRR) – 82.9%
- Interview Response Rate (IRR) – 71.4%
- Overall Response Rate (ORR) – 59.2%

- Lowest ORR – New York, 44.7%
- Highest ORR – Utah, 74.0%

National Survey on Drug Use and Health

Data Reports and Tables

Reports	Fre- quency	# of Years Pooled	Most Recent	Last Published
National	Annual	1	2014	9/2015
States	Annual	2	2013-14	12/2015
Sub-state	Bi-annual	3	2010-12	9/2014
State BH Barometers	Annual	2	2013-14	1/2016
Metro	varies	varies	varies	varies
Topical	varies	varies	varies	varies



Data to Empower

Our Lives. Our Health.

Our Future.

- **Online Analysis**
Temporarily unavailable
for redesign
- **Public Use Files**
 - **National annual file 2013
& earlier**

<http://www.samhsa.gov/data/online-analysis-public-use-files>



Behavioral Health Barometer

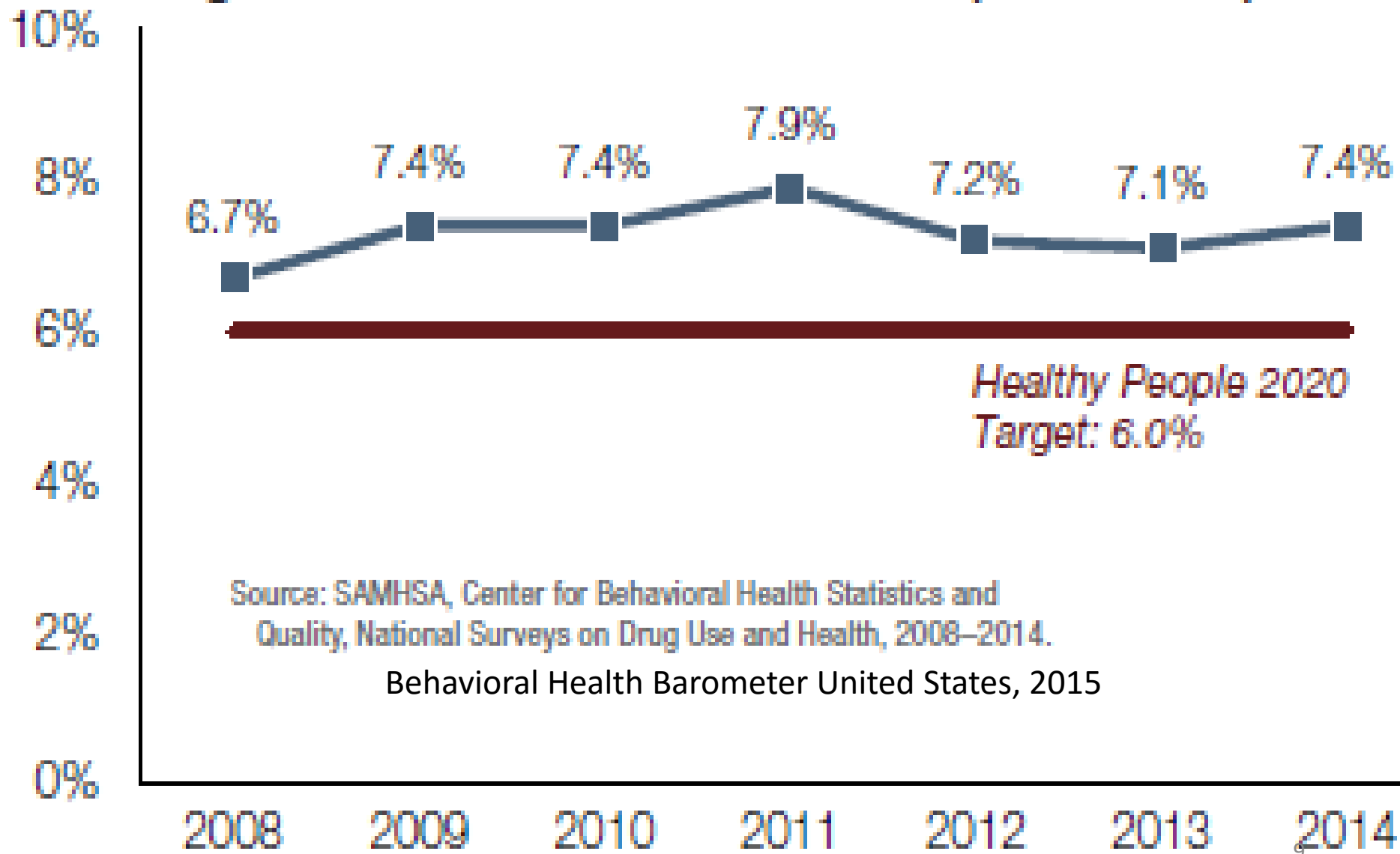
United States, 2015

RECOMMENDED CITATION

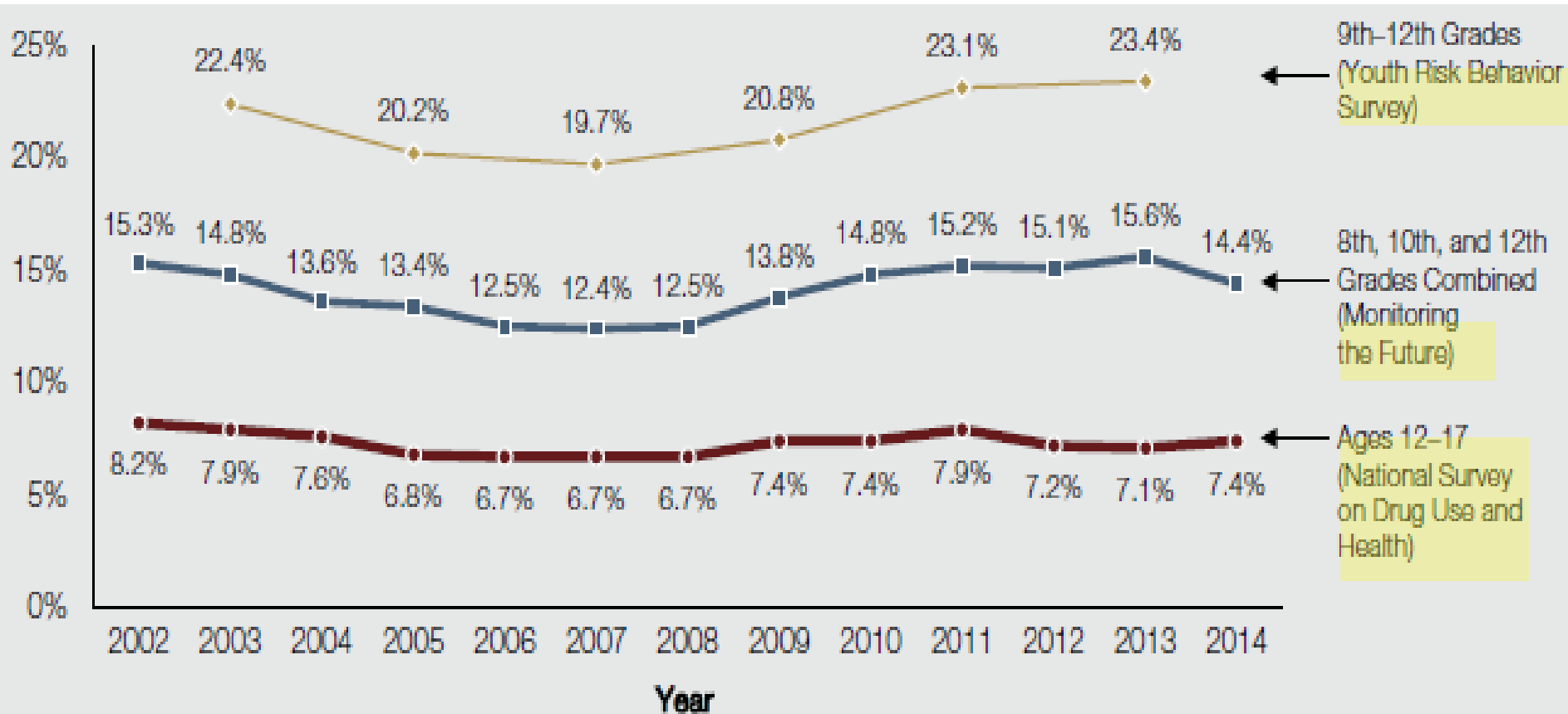
Substance Abuse and Mental Health Services Administration. *Behavioral Health Barometer: United States, 2015*. HHS Publication No. SMA-16-Baro-2015. Rockville, MD: Substance Abuse and Mental Health Services Administration, 2015.



Past Month Marijuana Use Among Adolescents Aged 12–17 in the United States (2008–2014)¹



Past Month Marijuana Use Among Adolescents in the United States, by National Survey (2002–2014)



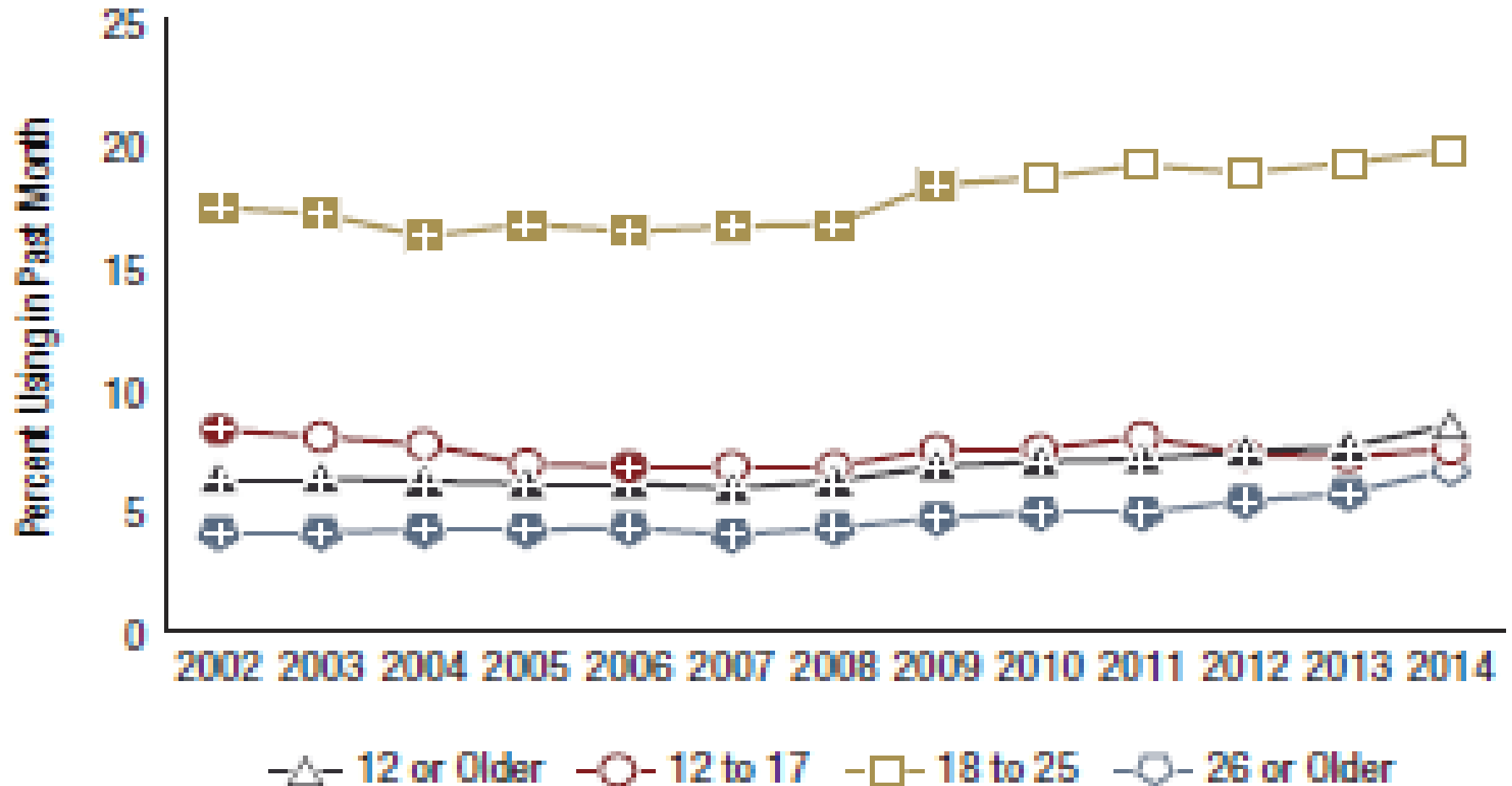
Sources: SAMHSA, Center for Behavioral Health Statistics and Quality, National Surveys on Drug Use and Health, 2002–2014; National Institute on Drug Abuse, Monitoring the Future, University of Michigan, 2002–2014; Centers for Disease Control and Prevention, Youth Risk Behavior Surveys, 2003, 2005, 2007, 2009, 2011, and 2013.

Behavioral Health Trends in the United States: Results from the 2014 National Survey on Drug Use and Health

Recommended Citation

Center for Behavioral Health Statistics and Quality. (2015). *Behavioral health trends in the United States: Results from the 2014 National Survey on Drug Use and Health* (HHS Publication No. SMA 15-4927, NSDUH Series H-50). Retrieved from <http://www.samhsa.gov/data/>

Figure 3. Past Month Marijuana Use among People Aged 12 or Older, by Age Group: Percentages, 2002-2014



+ Difference between this estimate and the 2014 estimate is statistically significant at the .05¹² level.

Past Month Binge Alcohol Use Among Adolescents

Aged 12–17 in the United States, by Gender (2008–2014)^{1,6}

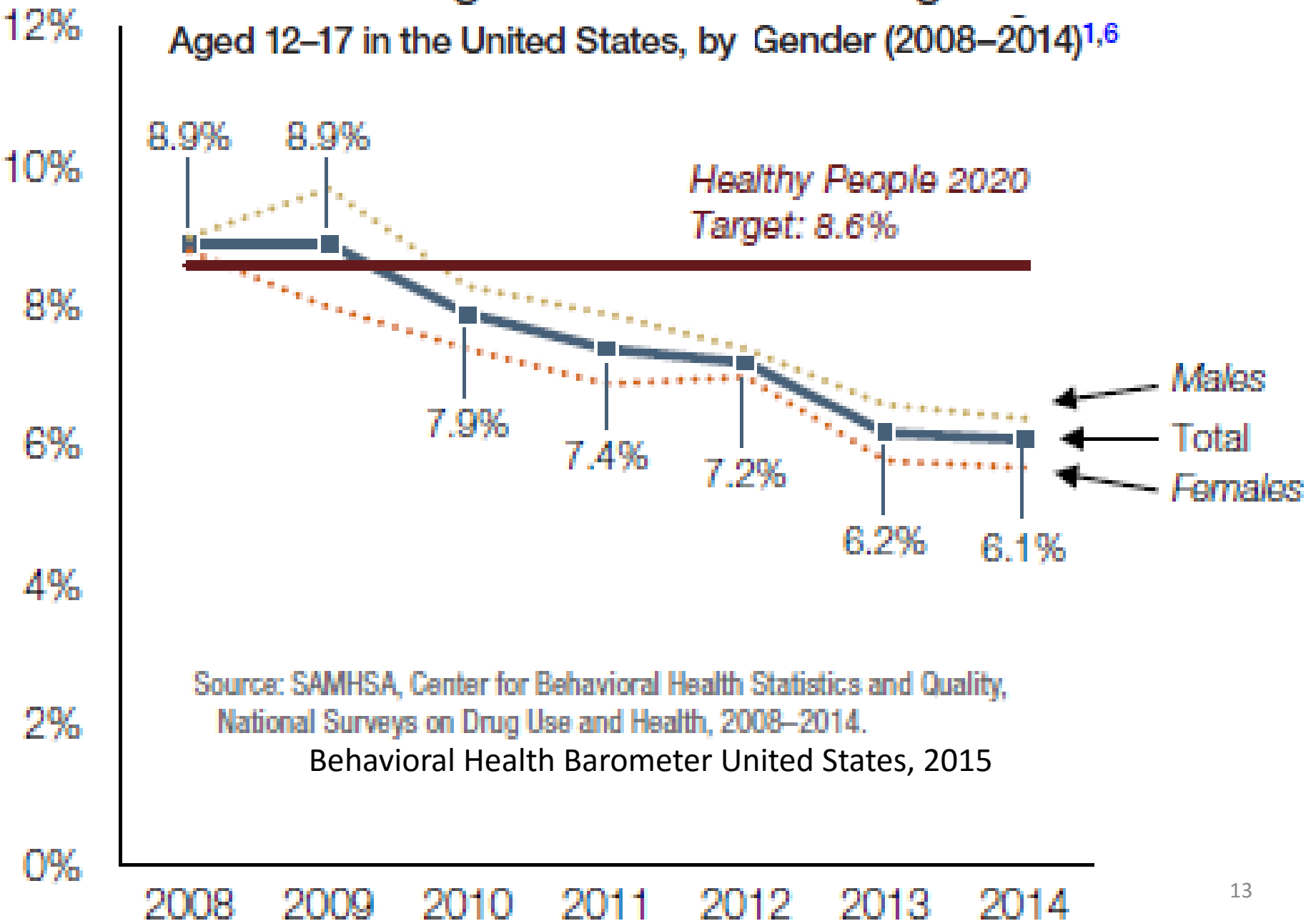
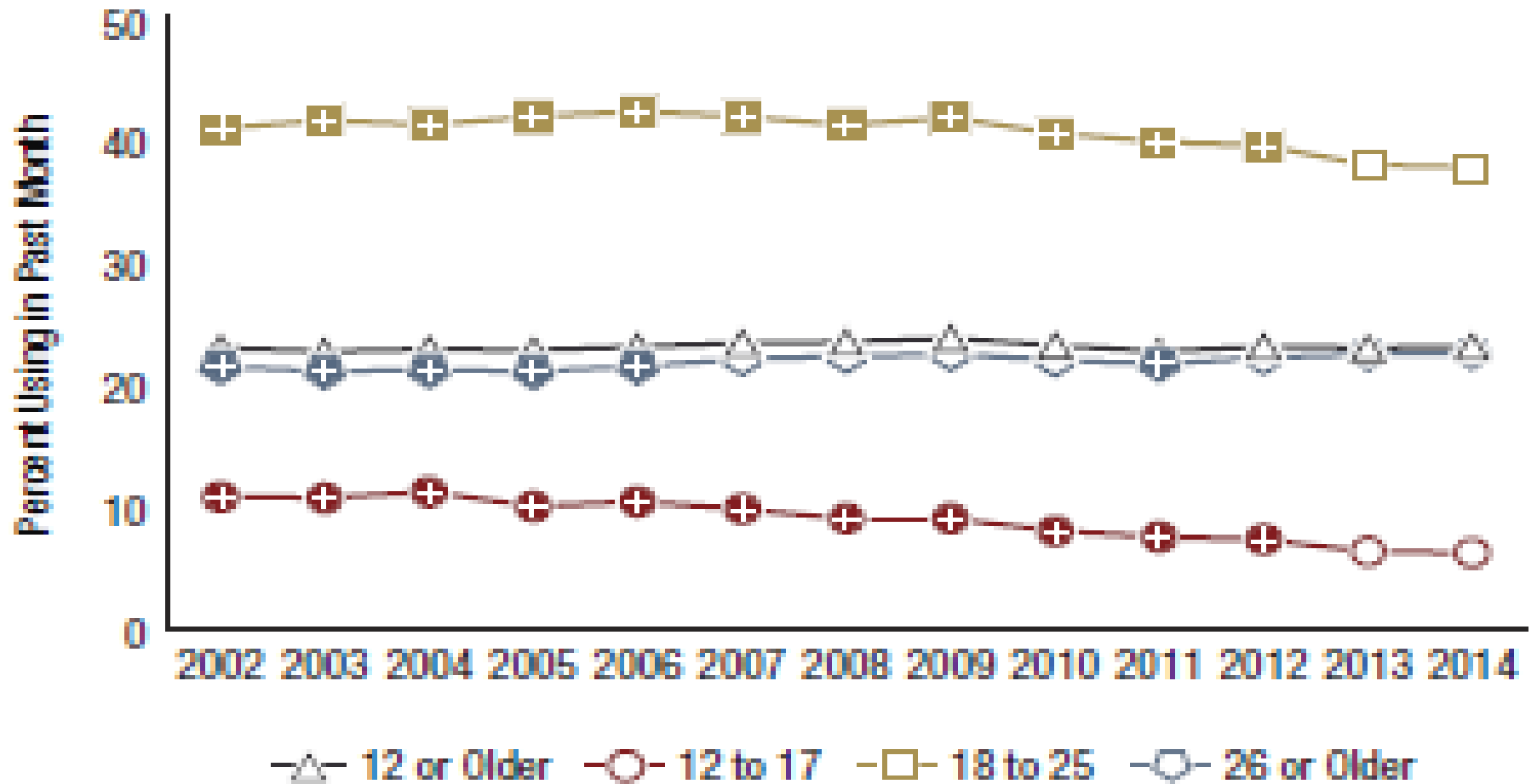


Figure 26. Past Month Binge Alcohol Use among People Aged 12 or Older, by Age Group: Percentages, 2002-2014



+ Difference between this estimate and the 2014 estimate is statistically significant at the .05 level.

Past Year Nonmedical Use of Pain Relievers Among Adolescents

in the United States, by National Survey and Gender (2002–2014)²

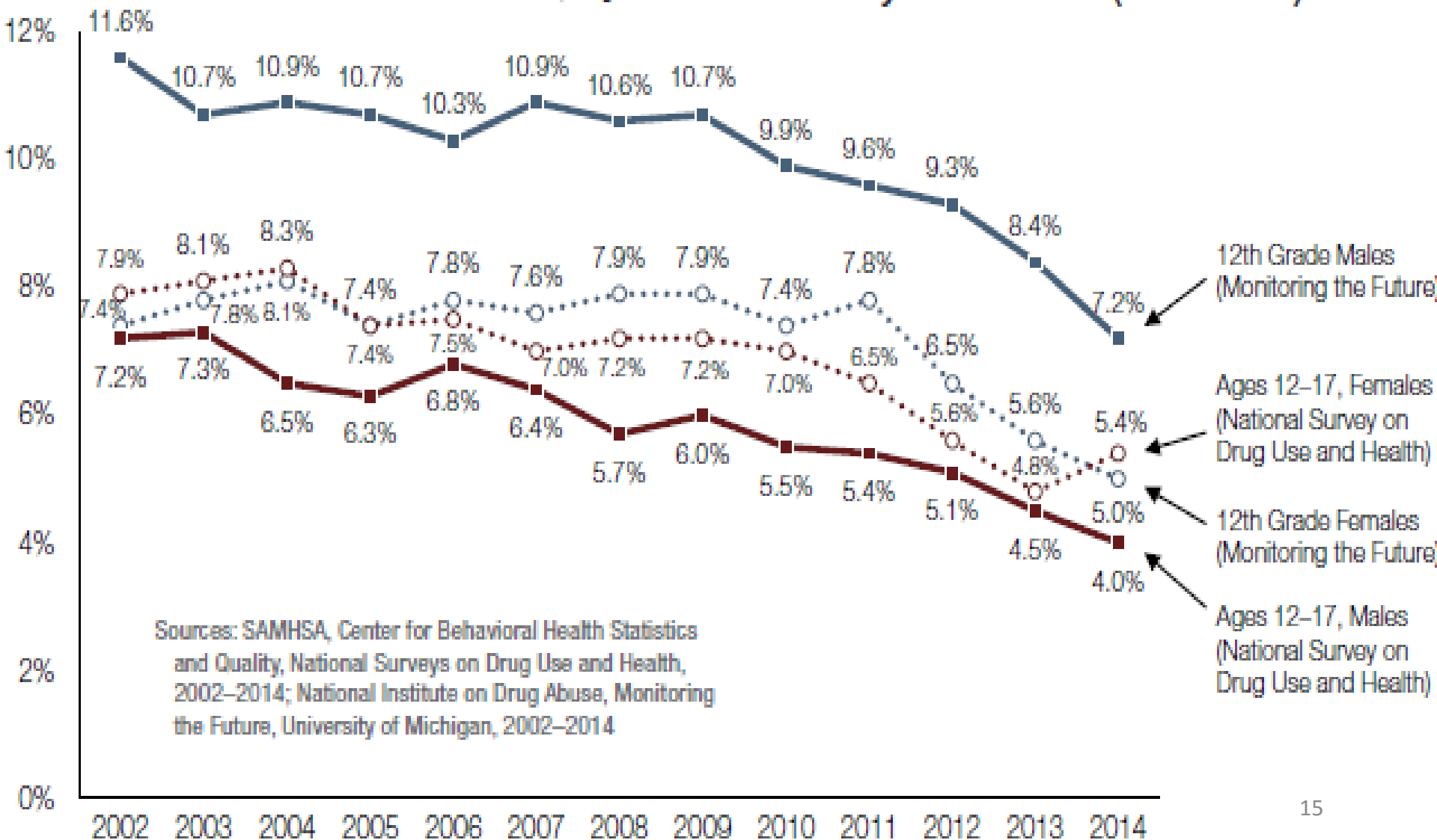
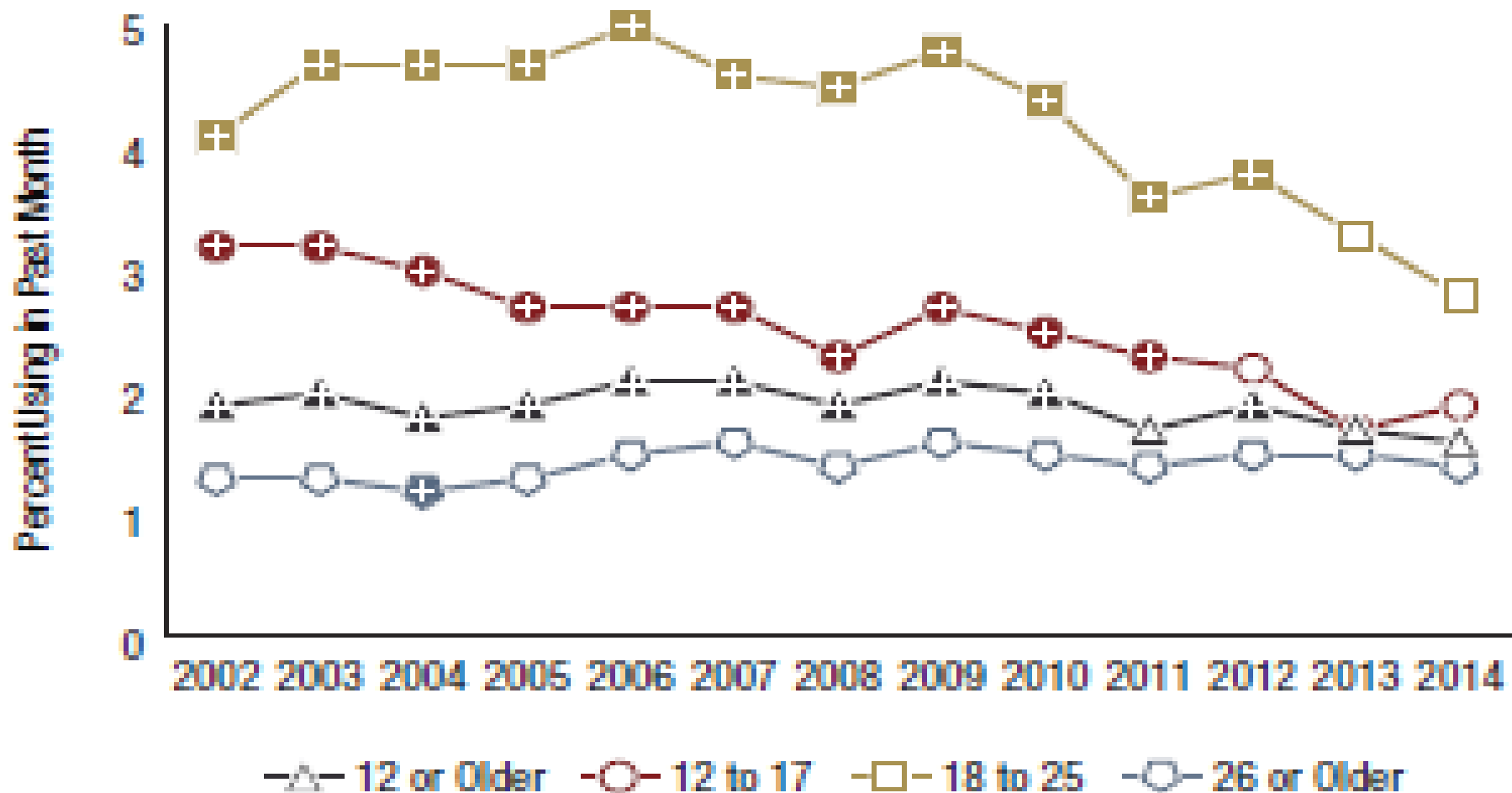
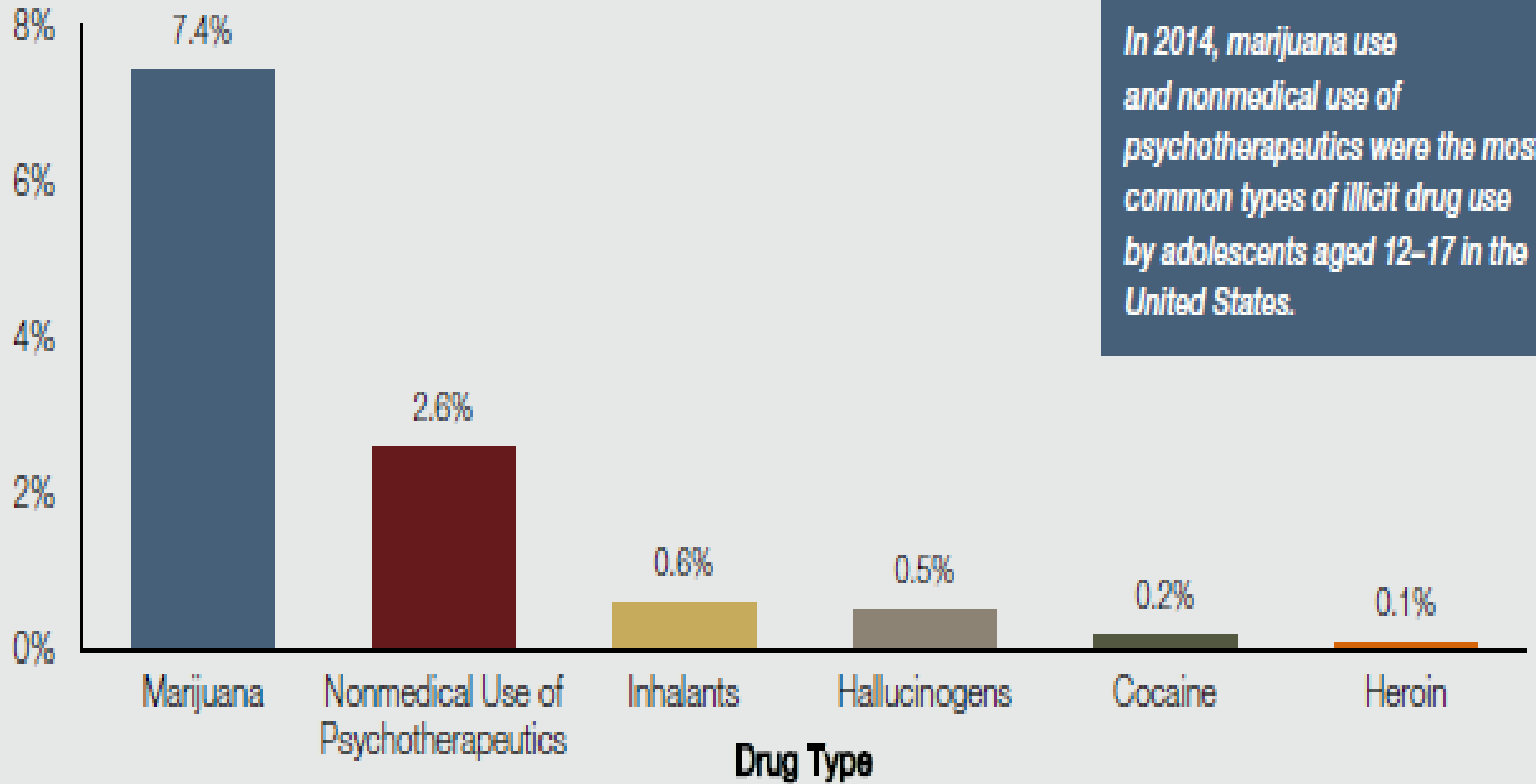


Figure 6. Past Month Nonmedical Use of Pain Relievers among People Aged 12 or Older, by Age Group: Percentages, 2002-2014



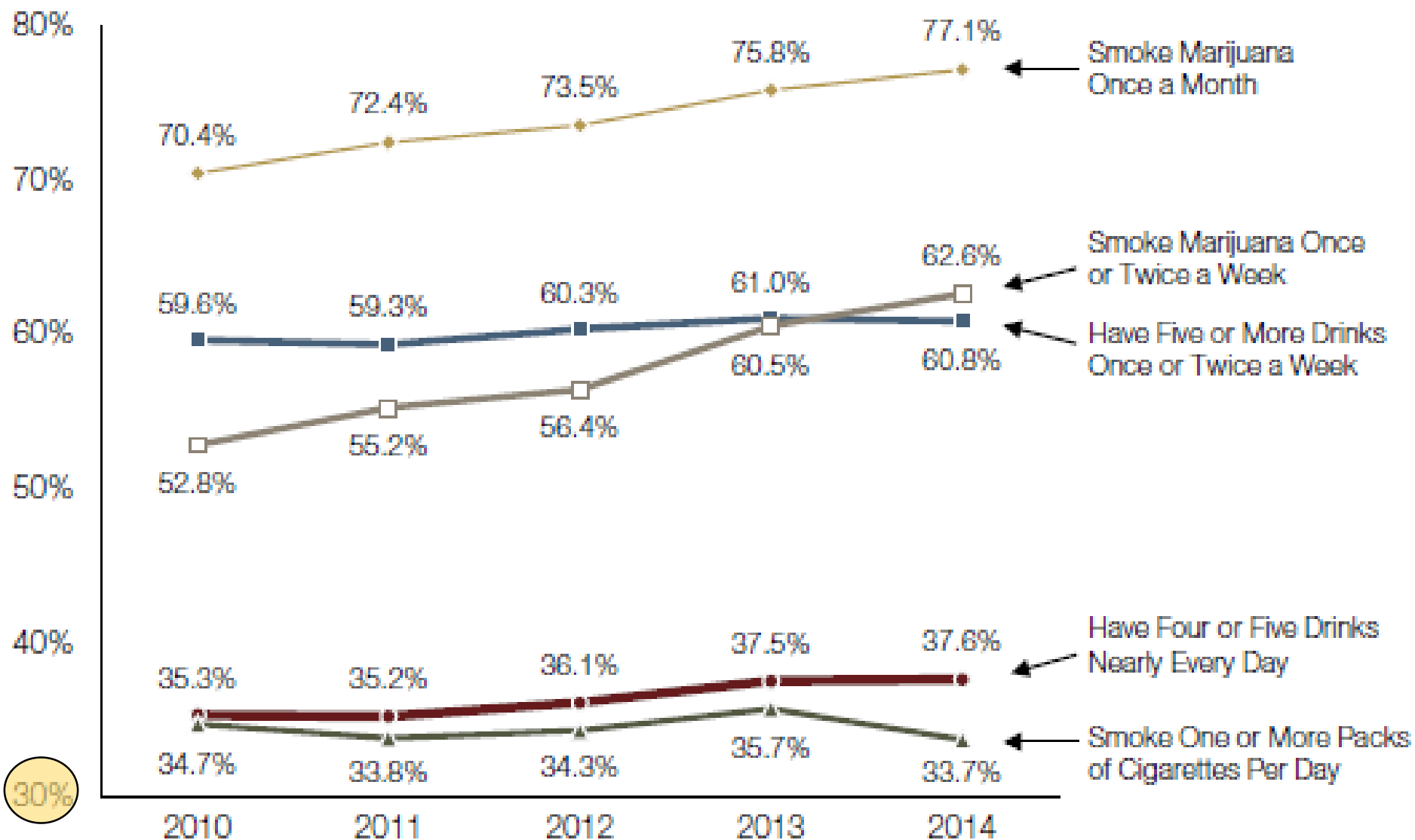
+ Difference between this estimate and the 2014 estimate is statistically significant at the .05 level.

Past Month Illicit Drug Use Among Adolescents Aged 12-17 in the United States, by Drug Type (2014)



Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2014.

Adolescents Aged 12–17 in the United States Who Perceived **No Great Risk From**



Behavioral Health Barometer United States, 2015

Figure 30. Alcohol Use Disorder or Illicit Drug Use Disorder in the Past Year among People Aged 12 or Older with Past Year Substance Use Disorders: 2014

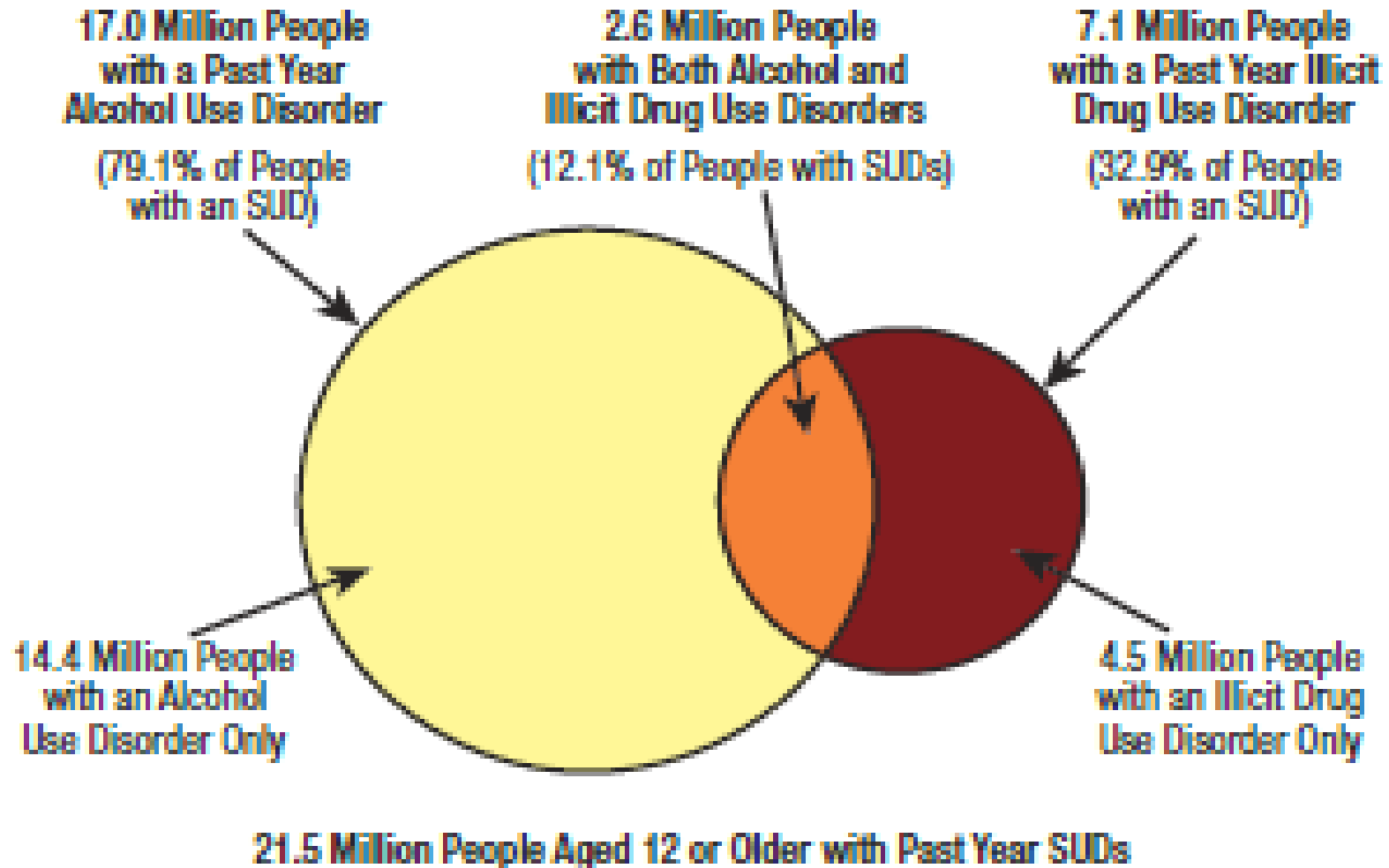
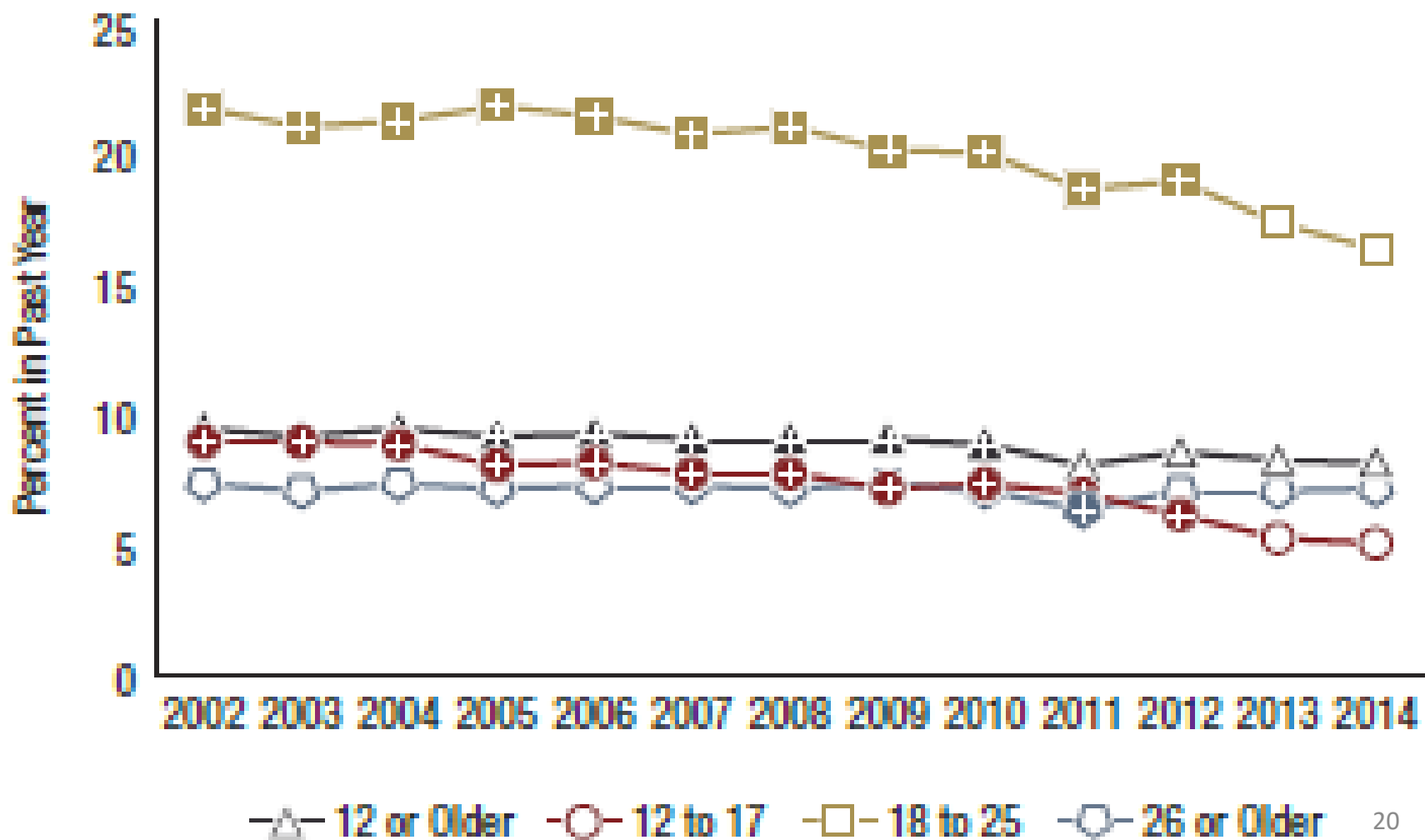


Figure 32. Substance Use Disorder in the Past Year among People Aged 12 or Older, by Age Group: Percentages, 2002-2014



Mental Illness Definitions for Adults Age 18 and Older

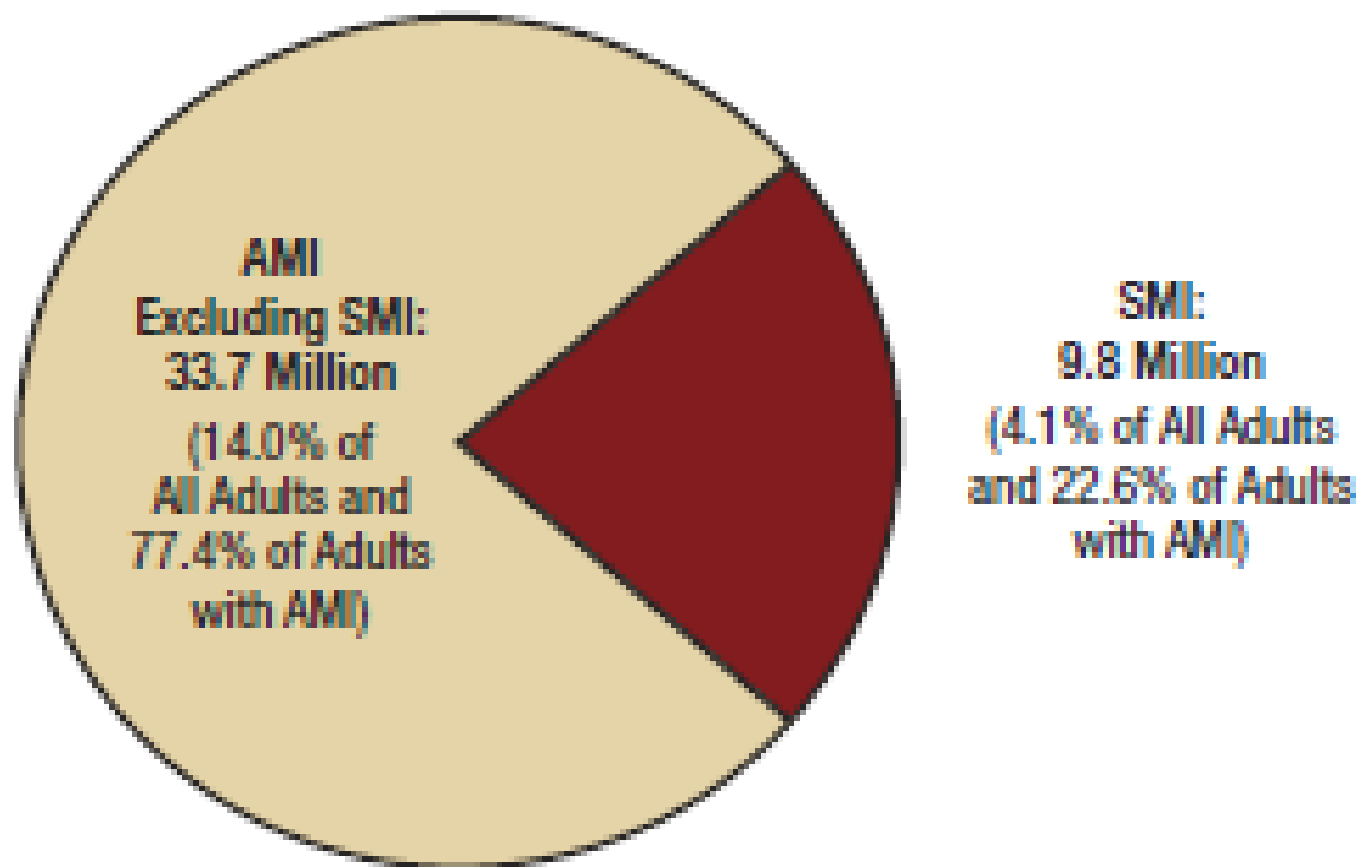
Past Year Any Mental Illness (AMI)

AMI is defined as having any mental, behavioral, or emotional disorder in the past year that met DSM-IV criteria (excluding developmental disorders and SUDs).

Past Year Serious Mental Illness (SMI)

SMI is defined as having **AMI** in the past year which substantially interfered with or limited one or more major life activities.

Figure 39. Any Mental Illness, Serious Mental Illness, and Any Mental Illness Excluding Serious Mental Illness in the Past Year among Adults Aged 18 or Older: 2014



43.6 Million Adults with AMI in the Past Year (18.1% of All Adults)

Figure 40. Any Mental Illness in the Past Year among Adults Aged 18 or Older, by Age Group: Percentages, 2008-2014

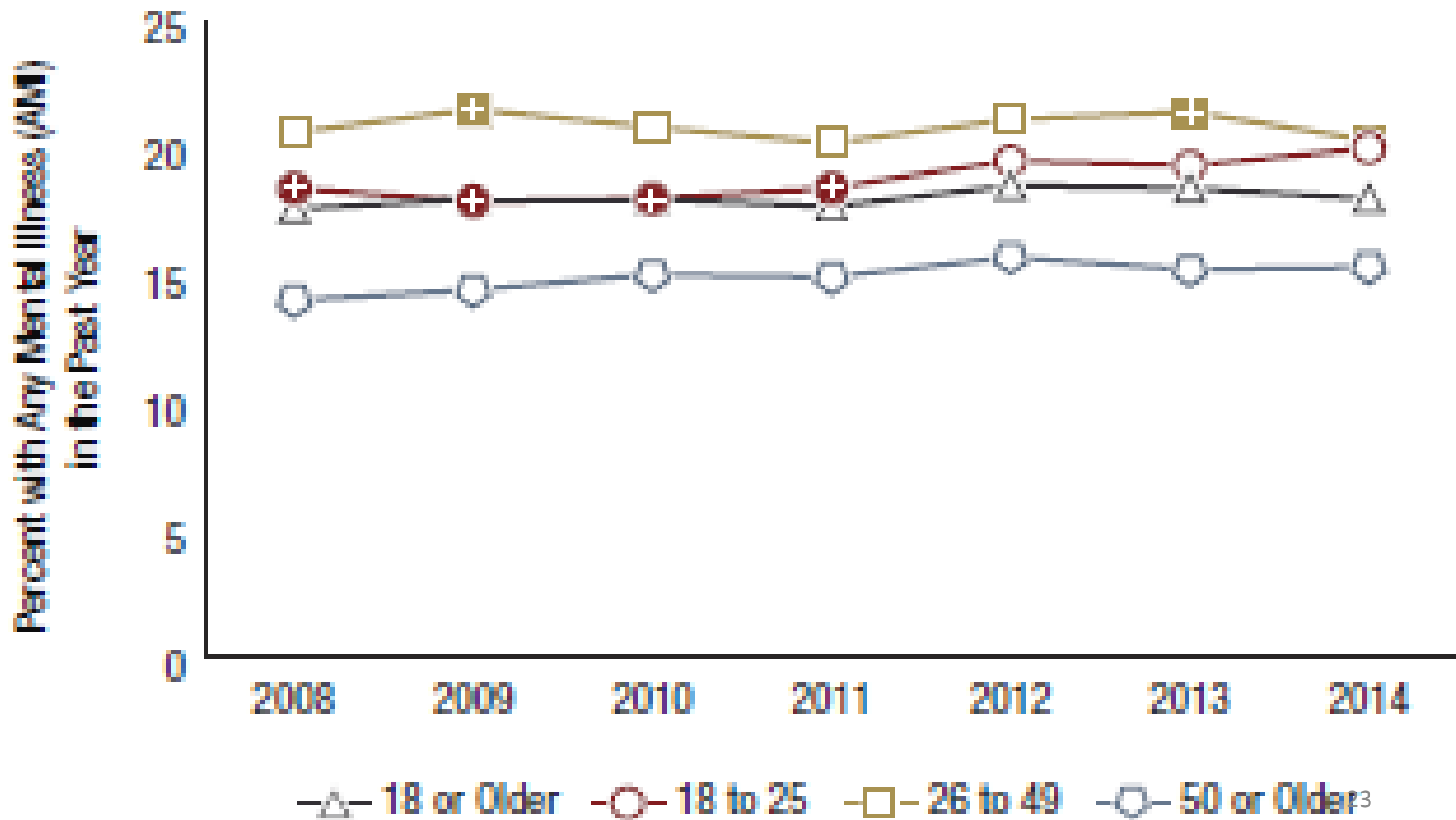
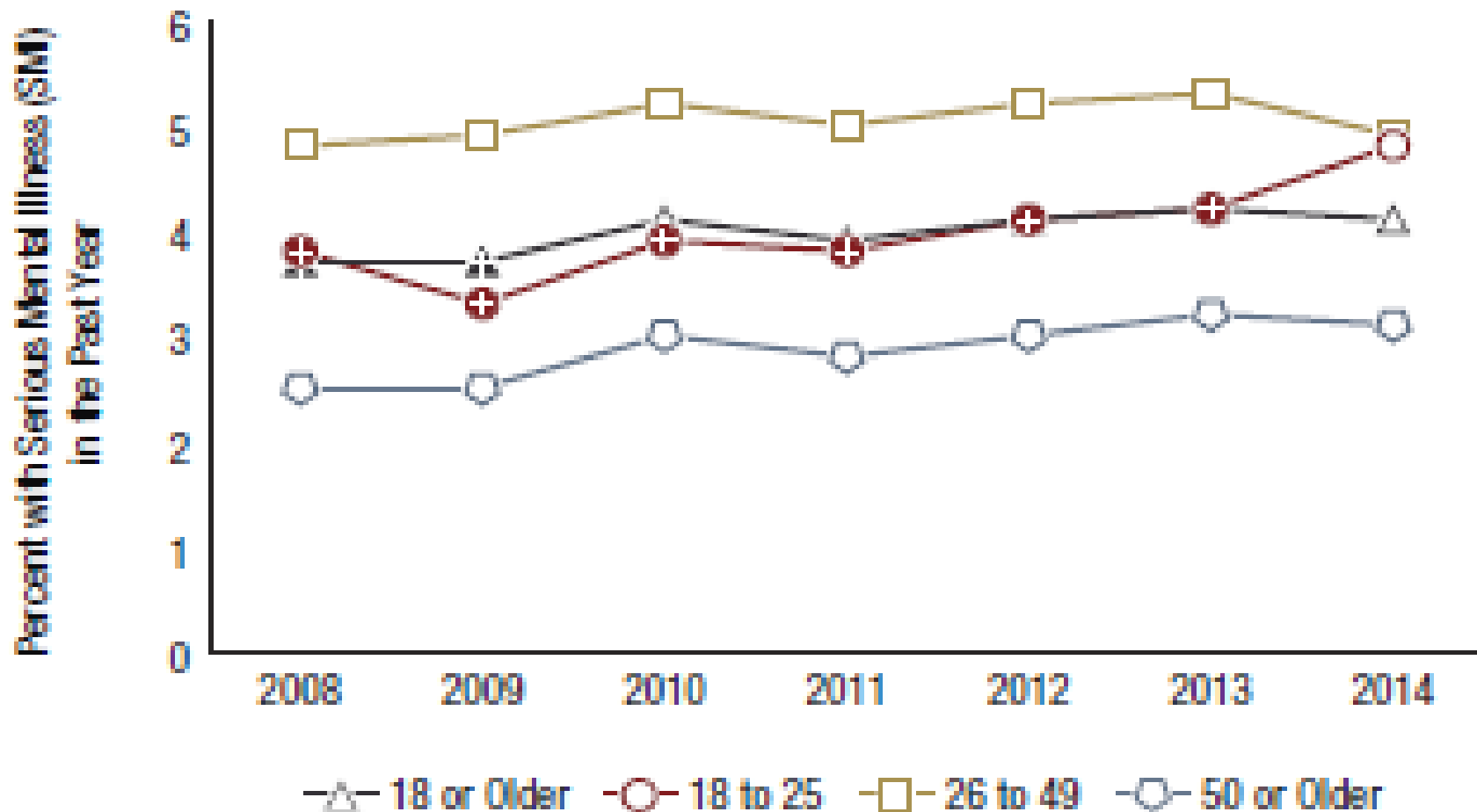


Figure 41. Serious Mental Illness in the Past Year among Adults Aged 18 or Older, by Age Group: Percentages, 2008-2014



⁺ Difference between this estimate and the 2014 estimate is statistically significant at the .05 level.²⁴

Past Year Major Depressive Episode (MDE)

MDE is a period of

- 2 weeks or longer in the past 12 months when a person experienced a
- depressed mood or loss of interest or pleasure in daily activities, and had
- at least some additional symptoms, such as problems with sleep, eating, energy, concentration, and self-worth.

Figure 48. Past Year Substance Use Disorders and Mental Illness among Adults Aged 18 or Older: 2014

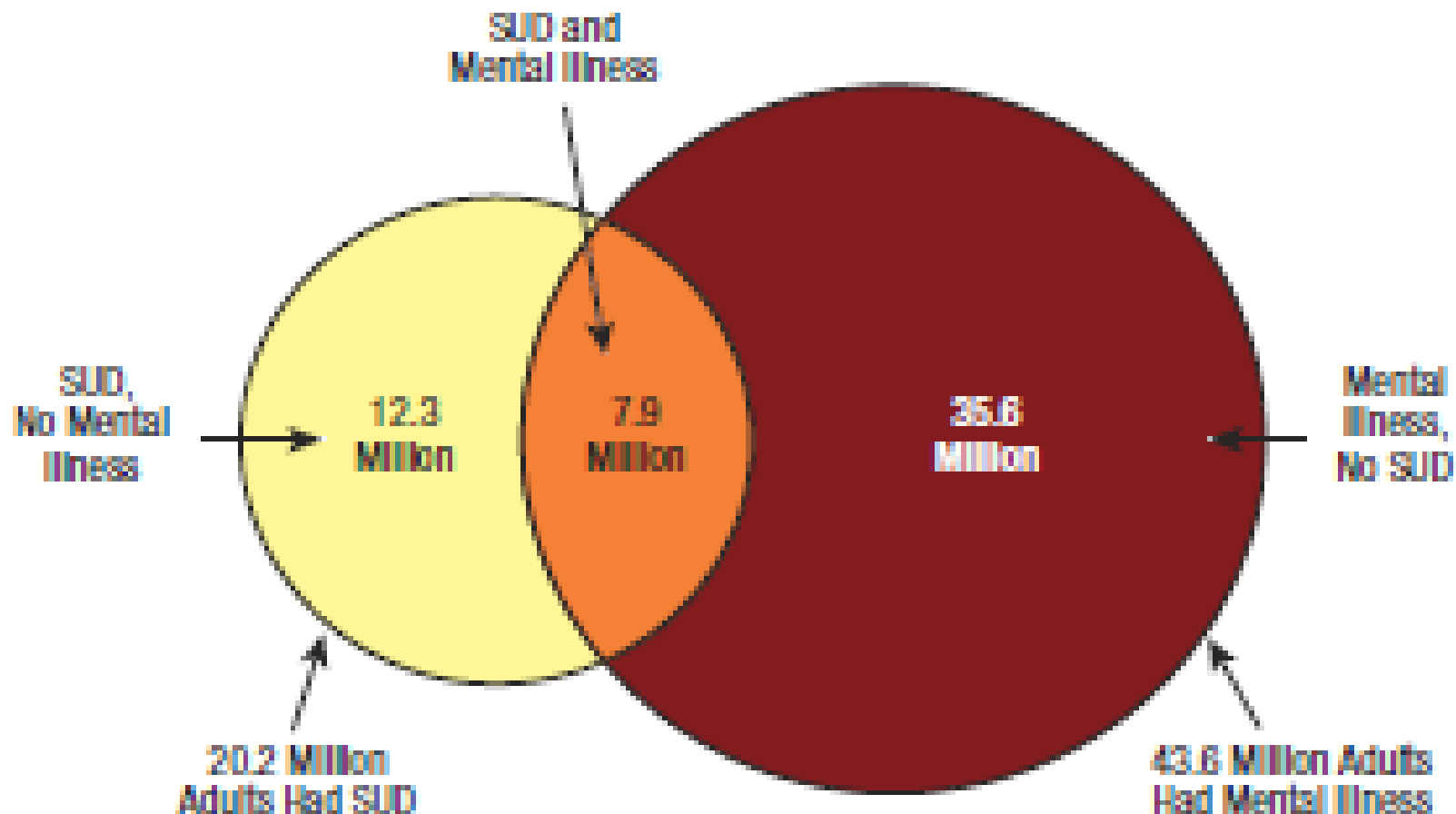
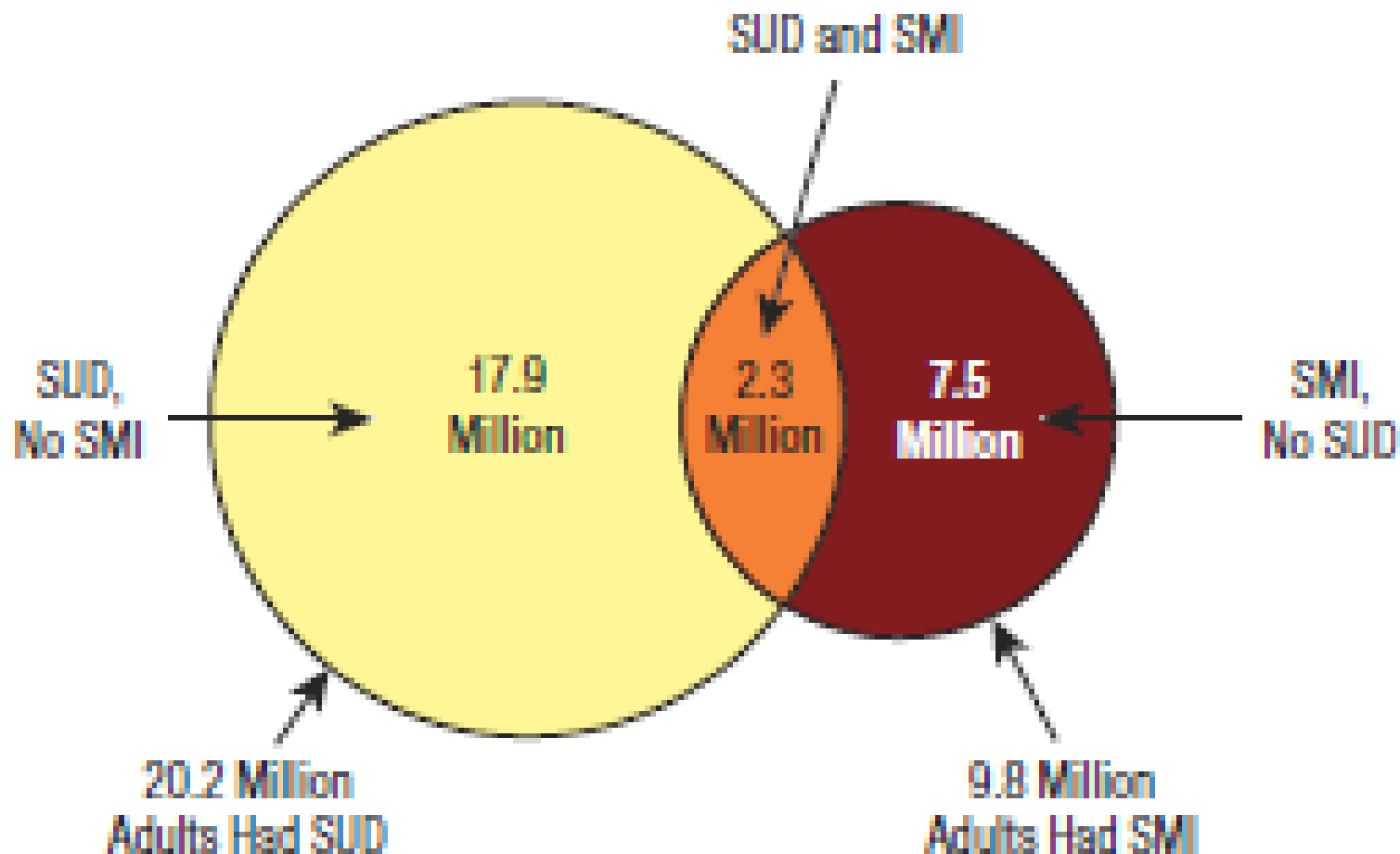


Figure 50. Past Year Substance Use Disorders and Serious Mental Illness among Adults Aged 18 or Older: 2014



NSDUH Small Area Estimates (SAE)

States are Small Areas for NSDUH

- Survey-weighted Hierarchical Bayes (SWHB) Model-based versus Design-bases estimates
- 27 **State-level** indicators; 26 **Sub-state** Indicators
- 3 Age Groups (12-17; 18-25; 26+; 18+, 12+) for most indicators – also underage (12-20) for alcohol
- Each indicator separately estimated (including *confidence intervals*) – Cannot be subtracted from one another to estimate another component.

State-level NSDUH Indicators	Age Groups				
	12+	12-17	18-25	26+	18+
Substance Use Behavior					
1. Illicit Drug Use in the Past Month	X	X	X	X	X
2. Marijuana Use in the <i>Past Year</i>	X	X	X	X	X
3. Marijuana Use in the Past Month	X	X	X	X	X
5. First Use of Marijuana [in Past Year]	X	X	X	X	X
6. Illicit Drug Use Other Than Marijuana in the Past Mo.	X	X	X	X	X
7. Cocaine Use in the <i>Past Year</i>	X	X	X	X	X
8. Nonmedical Use of Pain Relievers in the <i>Past Year</i>	X	X	X	X	X
9. Alcohol Use in the Past Month	X	X	X	X	X
10. Binge Alcohol Use [5+ drinks] in the Past Month	X	X	X	X	X
12a. [Underage] Alcohol Use in the Past Month	12-20				
12b. [Underage] Binge Drinking in the Past Month	12-20				
13. Tobacco Product Use in the Past Month	X	X	X	X	X
14. Cigarette Use in the Past Month	X	X	X	X	X

State-level NSDUH Indicators	Age Groups				
	12+	12-17	18-25	26+	18+
Perception of Great Risk [Protective Factor]					
4. From Smoking Marijuana <i>Once a Month</i>	X	X	X	X	X
11. From Having <i>Five or More Drinks Once or Twice a Week</i>	X	X	X	X	X
15. From Smoking <i>One or More Packs of Cigarettes per Day</i>	X	X	X	X	X

State-level NSDUH Indicators	Age Groups				
	12+	12-17	18-25	26+	18+
Substance Use Disorders					
16. Alcohol Dependence <i>or Abuse</i> in the Past Year	X	X	X	X	X
17. Alcohol Dependence in the Past Year	X	X	X	X	X
18. Illicit Drug Dependence <i>or Abuse</i> in the Past Year	X	X	X	X	X
19. Illicit Drug Dependence in the Past Year	X	X	X	X	X
20. Dependence or Abuse of Illicit Drugs or Alcohol in the Past Year	X	X	X	X	X
Needing But Not Receiving Treatment					
21. For Illicit Drug Use in the Past Year	X	X	X	X	X
22. For Alcohol Use in the Past Year	X	X	X	X	X
Mental Health Indicators					
23. Serious Mental Illness in the Past Year			X	X	X
24. Any Mental Illness in the Past Year			X	X	X
25. Had Serious Thoughts of Suicide in the Past Year			X	X	X
26. Major Depressive Episode in the Past Year		X	X	X	X

Table 76 Selected Drug Use, Perceptions of Great Risk, Average Annual Incidence Estimates of First Use of Marijuana, Past Year Substance Dependence or Abuse, Needing But Not Receiving Treatment, and Past Year Mental Health Measures in *New York*, by Age Group: Percentages, Annual Averages Based on 2013-2014 NSDUHs

Measure	12+	12-17	18-25	26+	18+
ILLICIT DRUGS					
Past Month Illicit Drug Use ¹	10.42	9.41	22.04	8.53	10.52
Past Year Marijuana Use	14.24	13.94	32.52	11.11	14.26
Past Month Marijuana Use	8.52	7.75	19.57	6.70	8.60
Past Month Use of Illicit Drugs Other Than Marijuana ¹	3.40	2.99	6.18	2.96	3.44
Past Year Cocaine Use	2.28	0.71	5.35	1.93	2.43
Past Year Nonmedical Pain Reliever Use	3.54	3.87	7.17	2.88	3.51
Perception of Great Risk from Smoking Marijuana Once a Month	27.20	21.31	12.84	30.36	27.76
Average Annual Incidence Estimates of First Use of Marijuana ^{2,3}	1.95	5.66	7.63	0.28	1.37
ALCOHOL					
Past Month Alcohol Use	56.11	12.86	61.14	60.04	60.21
Past Month Binge Alcohol Use ⁴	23.83	6.75	38.00	23.28	25.44
Perception of Great Risk from Drinking Five or More Drinks Once or Twice a Week	40.94	39.97	34.40	42.18	41.03
Past Month Alcohol Use (Individuals Aged 12 to 20)	24.36 ⁵	--	--	--	--
Past Month Binge Alcohol Use (Individuals Aged 12 to 20) ⁴	13.98 ⁵	--	--	--	--
TOBACCO PRODUCTS					
Past Month Tobacco Product Use ⁶	23.40	5.90	31.18	24.00	25.06
Past Month Cigarette Use	19.75	4.34	26.25	20.34	21.21
Perception of Great Risk from Smoking One or More Packs of Cigarettes per Day	75.07	67.15	70.41	76.75	75.81
PAST YEAR DEPENDENCE, ABUSE, AND TREATMENT⁷					
Illicit Drug Dependence ¹	2.25	1.70	5.30	1.79	2.30
Illicit Drug Dependence or Abuse ¹	2.90	3.28	7.08	2.14	2.86
Alcohol Dependence	3.28	1.06	5.58	3.12	3.49
Alcohol Dependence or Abuse	6.61	2.74	11.92	6.12	6.97
Alcohol or Illicit Drug Dependence or Abuse ¹	8.41	4.90	16.38	7.42	8.74
Needing But Not Receiving Treatment for Illicit Drug Use ^{1,8}	2.52	3.03	6.24	1.82	2.47
Needing But Not Receiving Treatment for Alcohol Use ⁸	6.08	2.50	11.26	5.59	6.42
PAST YEAR MENTAL HEALTH ISSUES					
Major Depressive Episode ^{3,9}	--	10.46	9.20	5.83	6.32
Serious Mental Illness ^{3,10}	--	--	4.33	3.66	3.76
Any Mental Illness ^{3,10}	--	--	20.79	17.08	17.63
Had Serious Thoughts of Suicide ¹¹	--	--	7.20	3.11	3.71



Behavioral Health Barometer

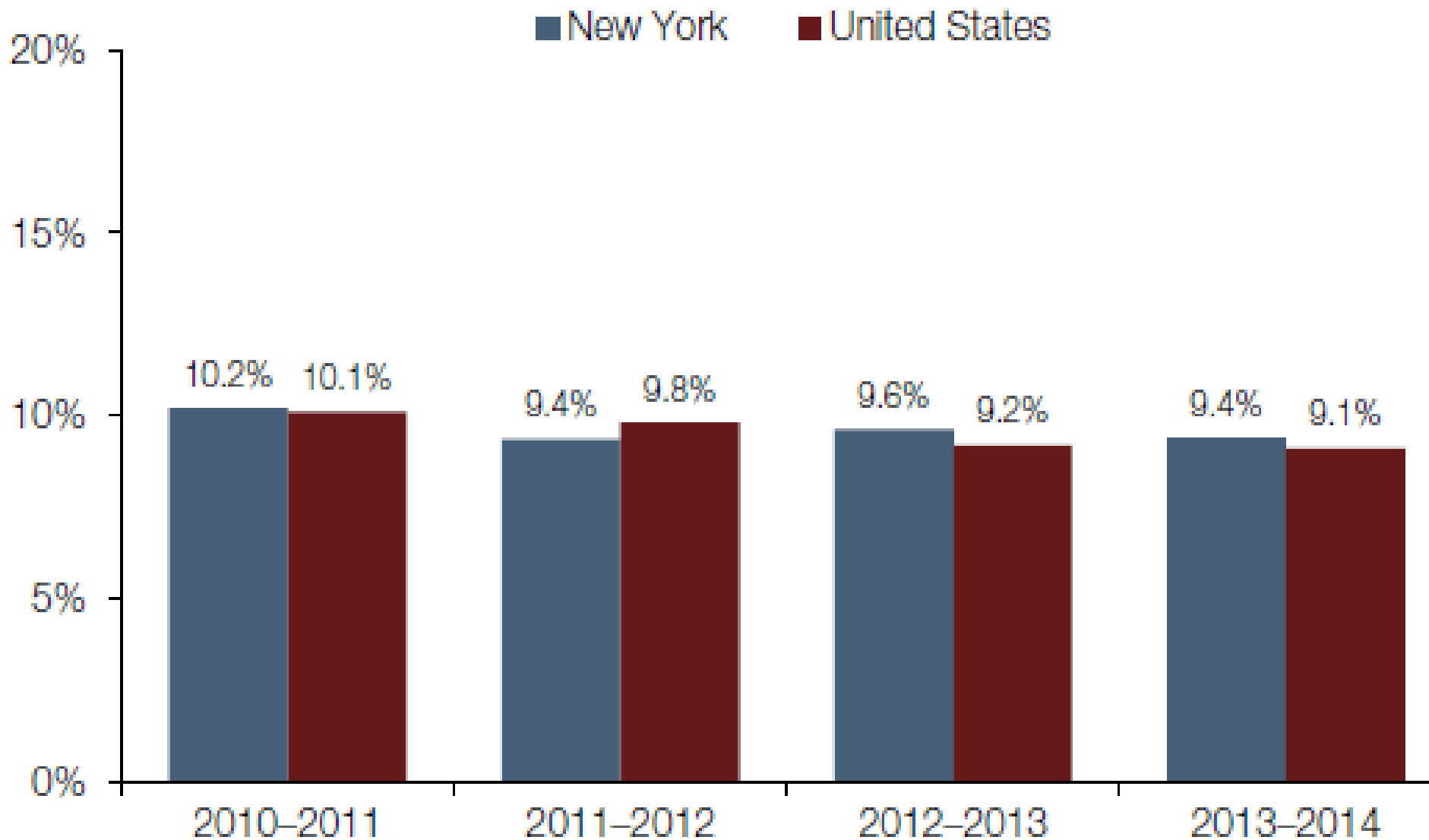
New York, 2015

Recommended Citation

Substance Abuse and Mental Health Services Administration. *Behavioral Health Barometer: New York, 2015*. HHS Publication No. SMA-16-Baro-2015-NY. Rockville, MD: Substance Abuse and Mental Health Services Administration, 2015.

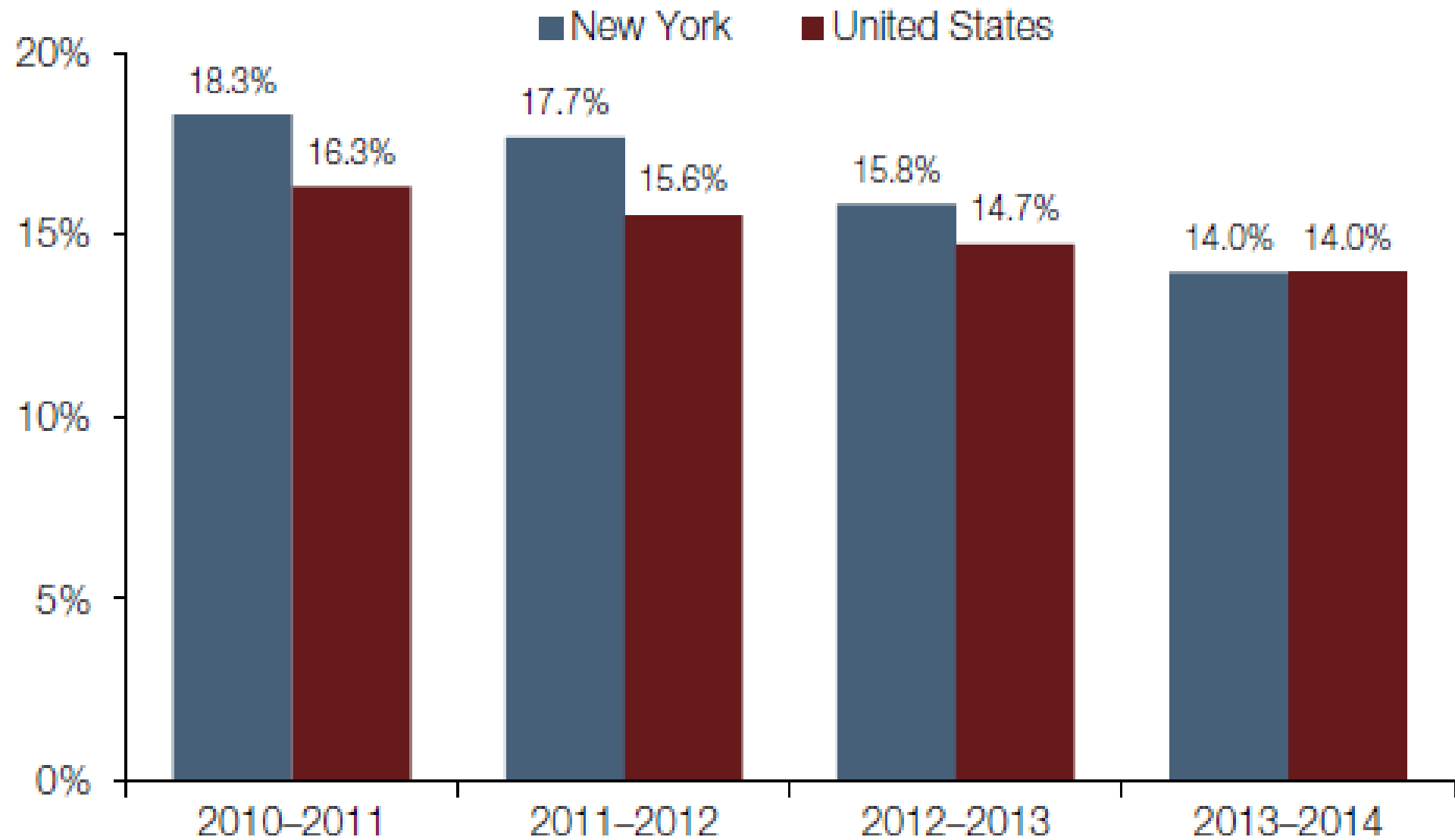


Past Month Illicit Drug Use Among Adolescents Aged 12–17 in New York and the United States (2010–2011 to 2013–2014)¹



Source: Behavioral Health Barometer, New York, 2015. SAMHSA, Center for Behavioral Health Statistics and Quality, National Surveys on Drug Use and Health, 2010–2011 to 2013–2014.

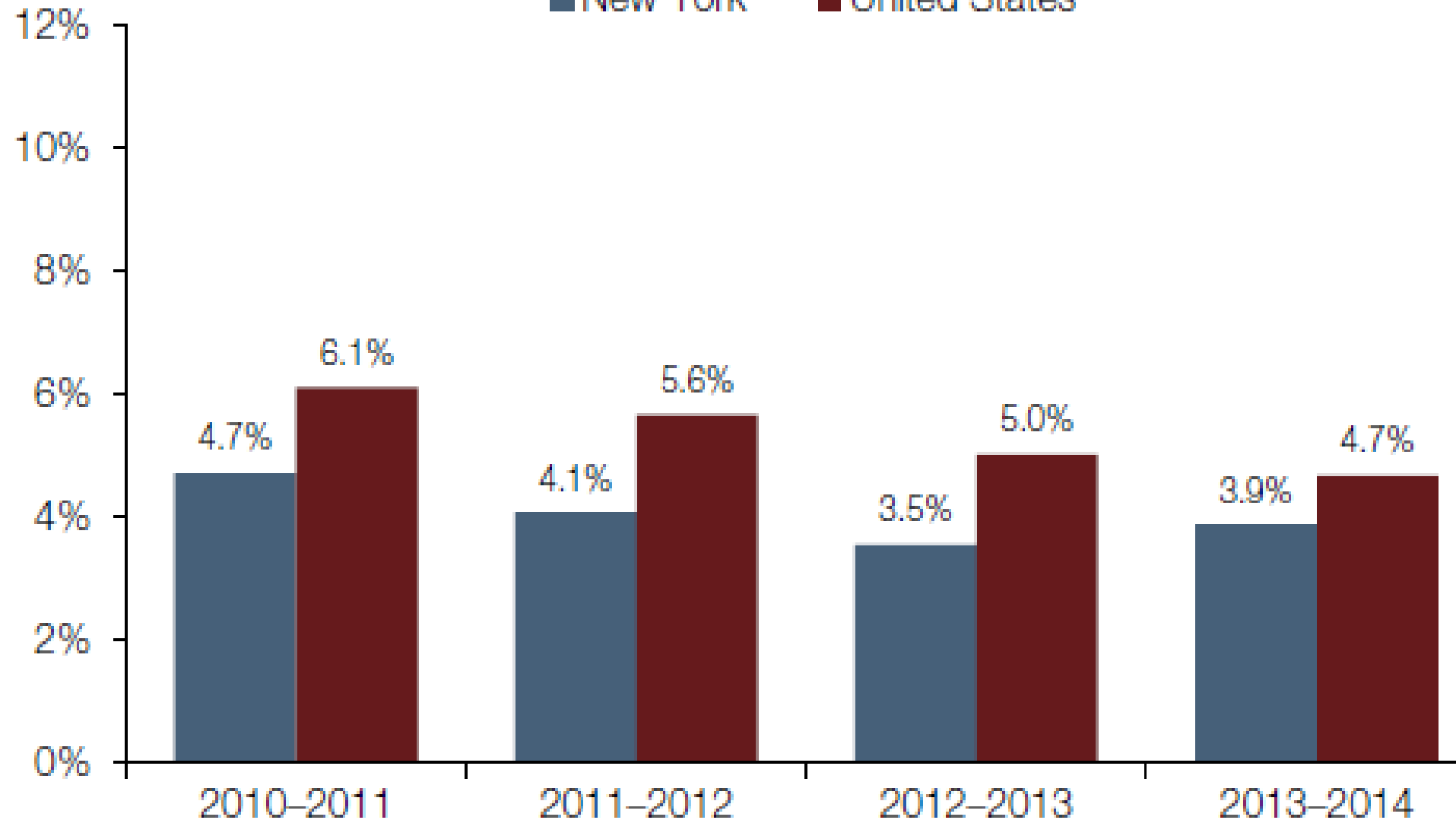
Past Month Binge Alcohol Use Among Individuals Aged 12–20 in New York and the United States (2010–2011 to 2013–2014)



Source: Behavioral Health Barometer, New York, 2015. SAMHSA, Center for Behavioral Health Statistics and Quality, National Surveys on Drug Use and Health, 2010–2011 to 2013–2014.

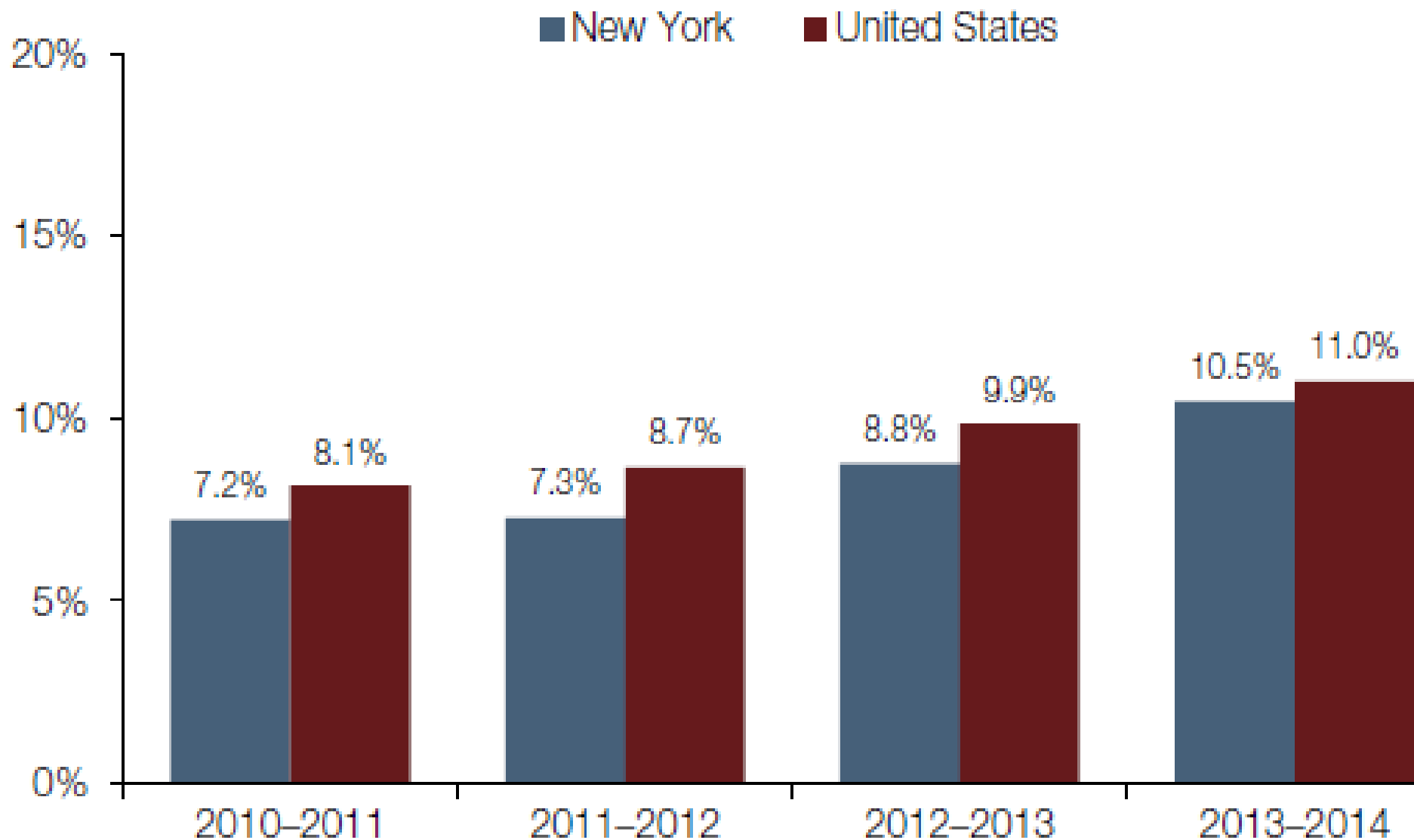
Past Year Nonmedical Use of Pain Relievers Among Adolescents Aged 12–17 in New York and the United States (2010–2011 to 2013–2014)

■ New York ■ United States



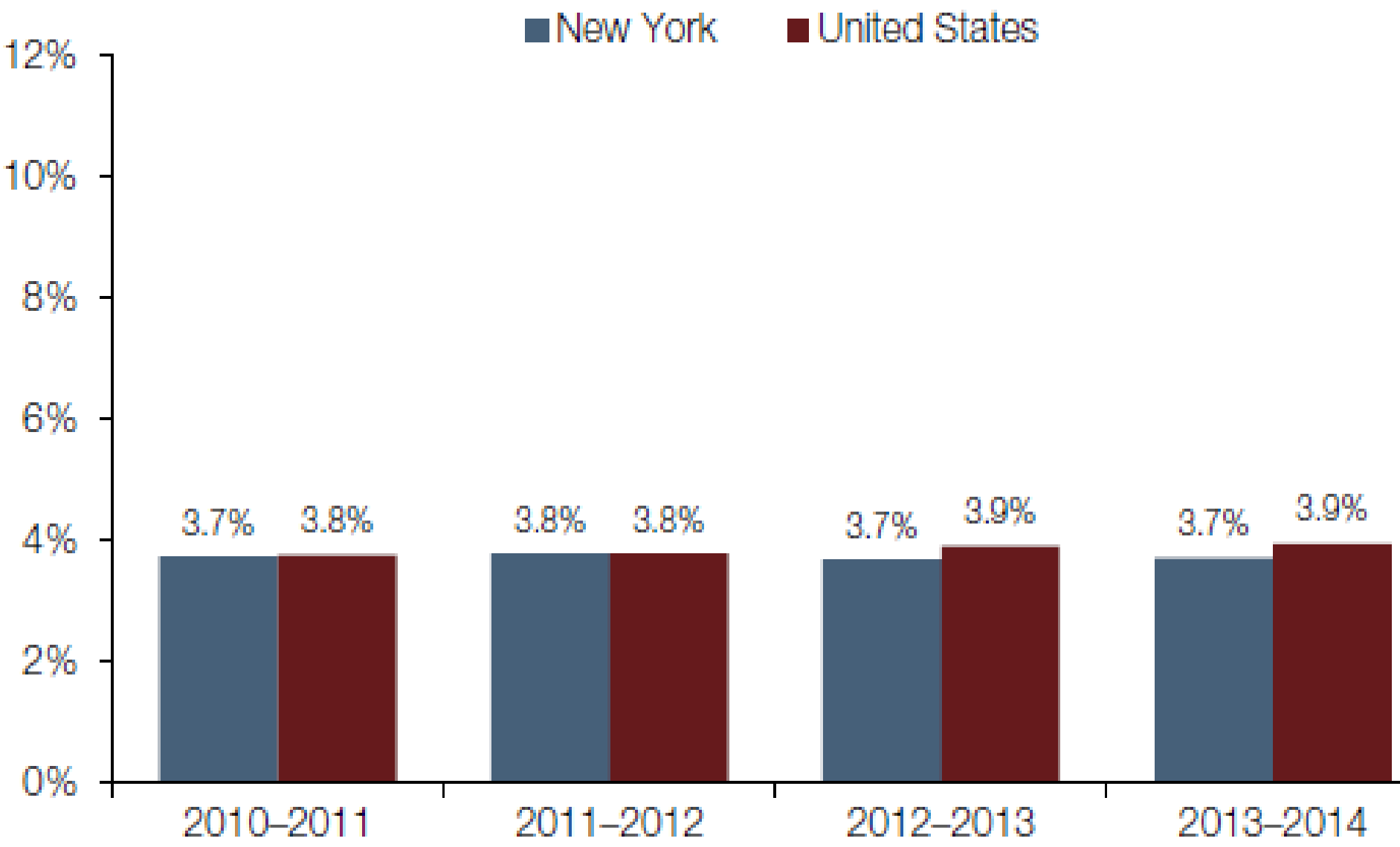
Source: Behavioral Health Barometer, New York, 2015. SAMHSA, Center for Behavioral Health Statistics and Quality, National Surveys on Drug Use and Health, 2010–2011 to 2013–2014.

Past Year Major Depressive Episode (MDE) Among Adolescents Aged 12–17 in New York and the United States (2010–2011 to 2013–2014)



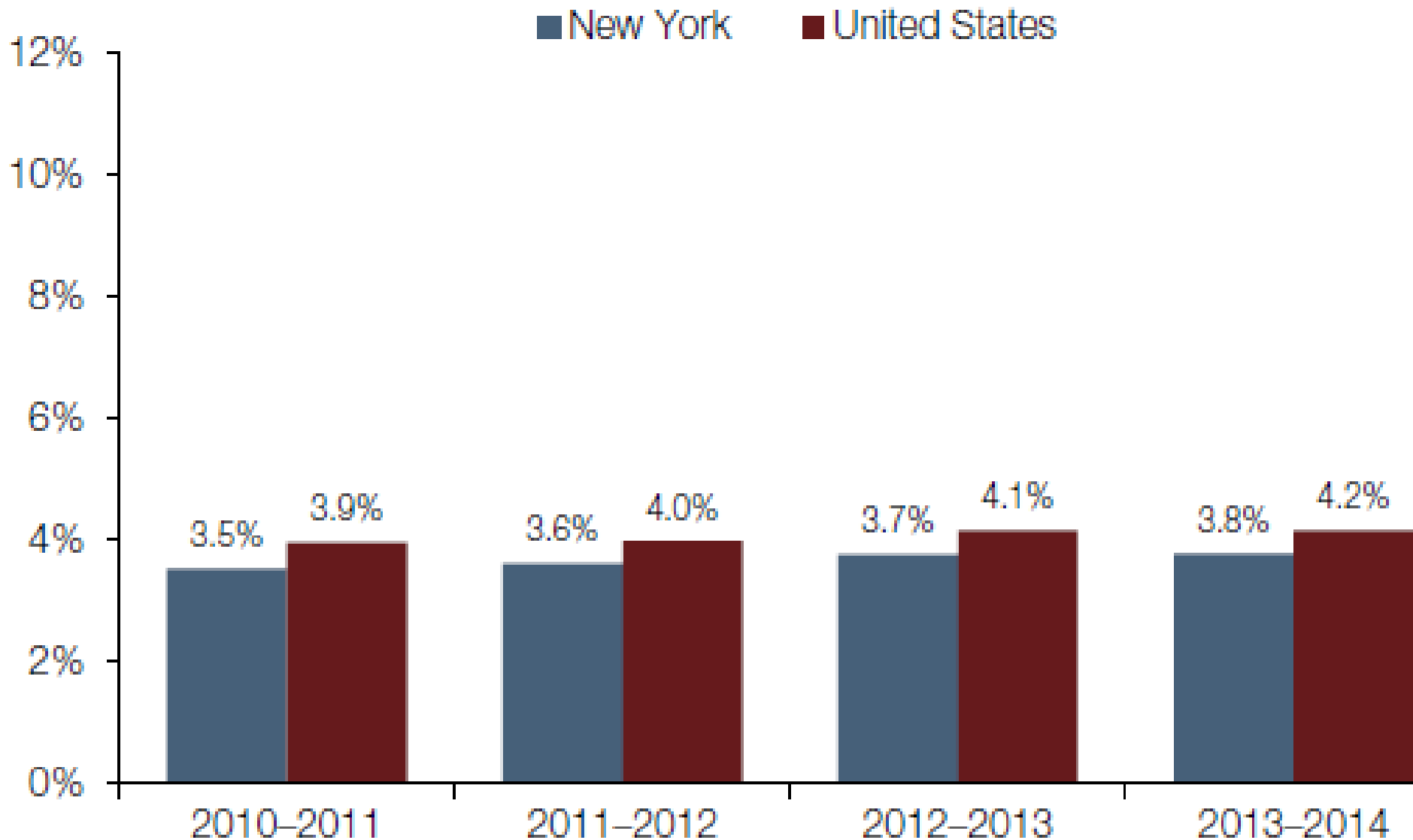
Source: Behavioral Health Barometer, New York, 2015. SAMHSA, Center for Behavioral Health Statistics and Quality, National Surveys on Drug Use and Health, 2010–2011 to 2013–2014.

Past Year Serious Thoughts of Suicide Among Adults Aged 18 or Older in New York and the United States (2010–2011 to 2013–2014)



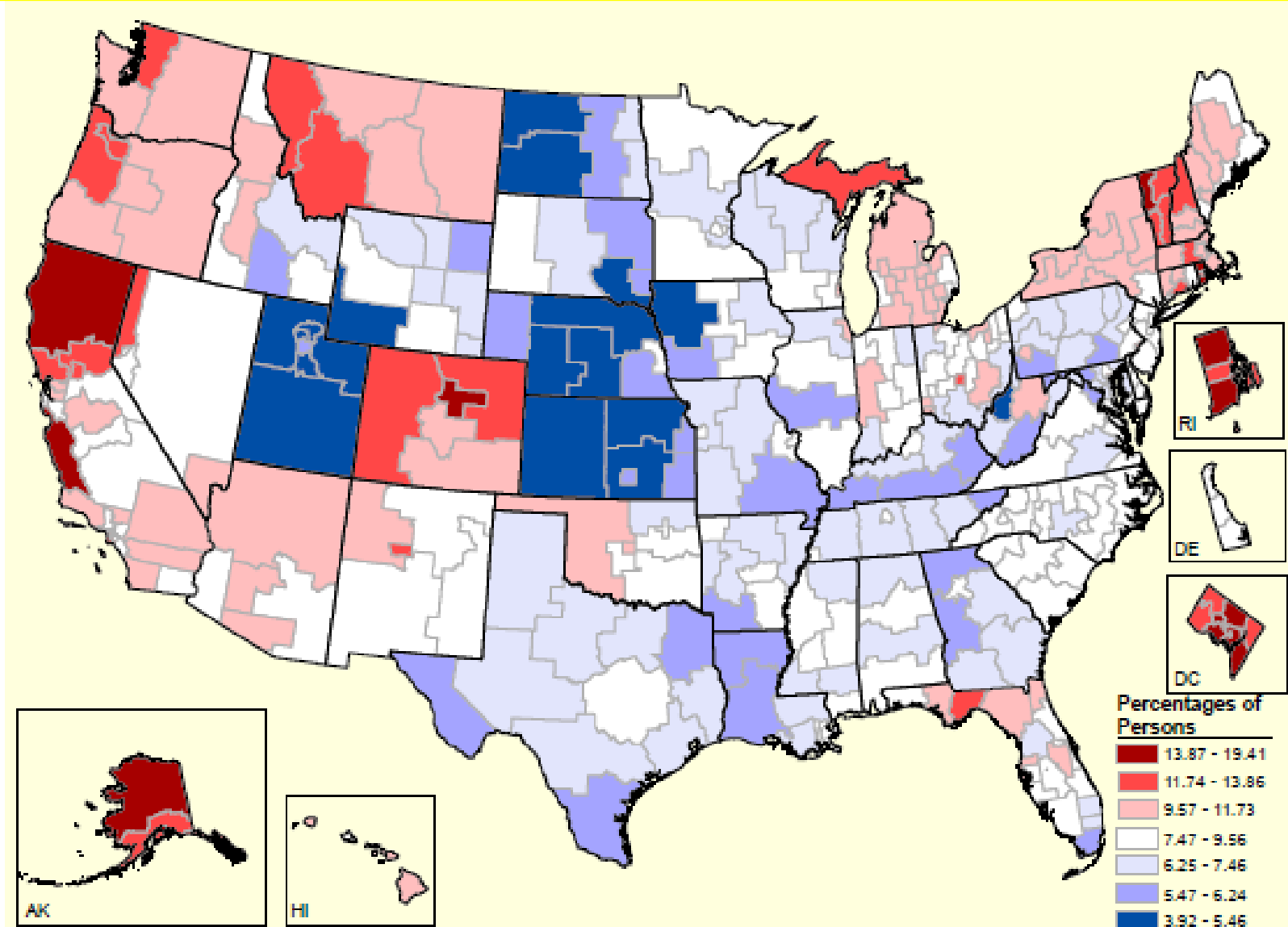
Source: Behavioral Health Barometer, New York, 2015. SAMHSA, Center for Behavioral Health Statistics and Quality, National Surveys on Drug Use and Health, 2010–2011 to 2013–2014.

Past Year Serious Mental Illness (SMI) Among Adults Aged 18 or Older in New York and the United States (2010–2011 to 2013–2014)



Source: Behavioral Health Barometer, New York, 2015. SAMHSA, Center for Behavioral Health Statistics and Quality, National Surveys on Drug Use and Health, 2010–2011 to 2013–2014.

***Marijuana Use in the Past Month* among Persons Aged 12 or Older, by Substate Region: Percentages, Annual Averages Based on 2010, 2011, and 2012 NSDUHs**



Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2010, 2011, and 2012 (2010 Data – Revised March 2012). <http://www.samhsa.gov/data/NSDUH/substate2k12/toc.aspx>.

New York State Epidemiological Regions & Areas

A. New York City Region

1. The Bronx (Bronx County)
2. Brooklyn & Staten Island (Kings and Richmond counties)
3. Manhattan (New York County)
4. Queens (Queens County)

B. NY Metropolitan Suburban Region

5. Long Island (Nassau, Suffolk counties)
6. Metro North (Westchester, Rockland, Putnam counties)
7. Dutchess-Orange-Ulster (Dutchess, Orange, Ulster)

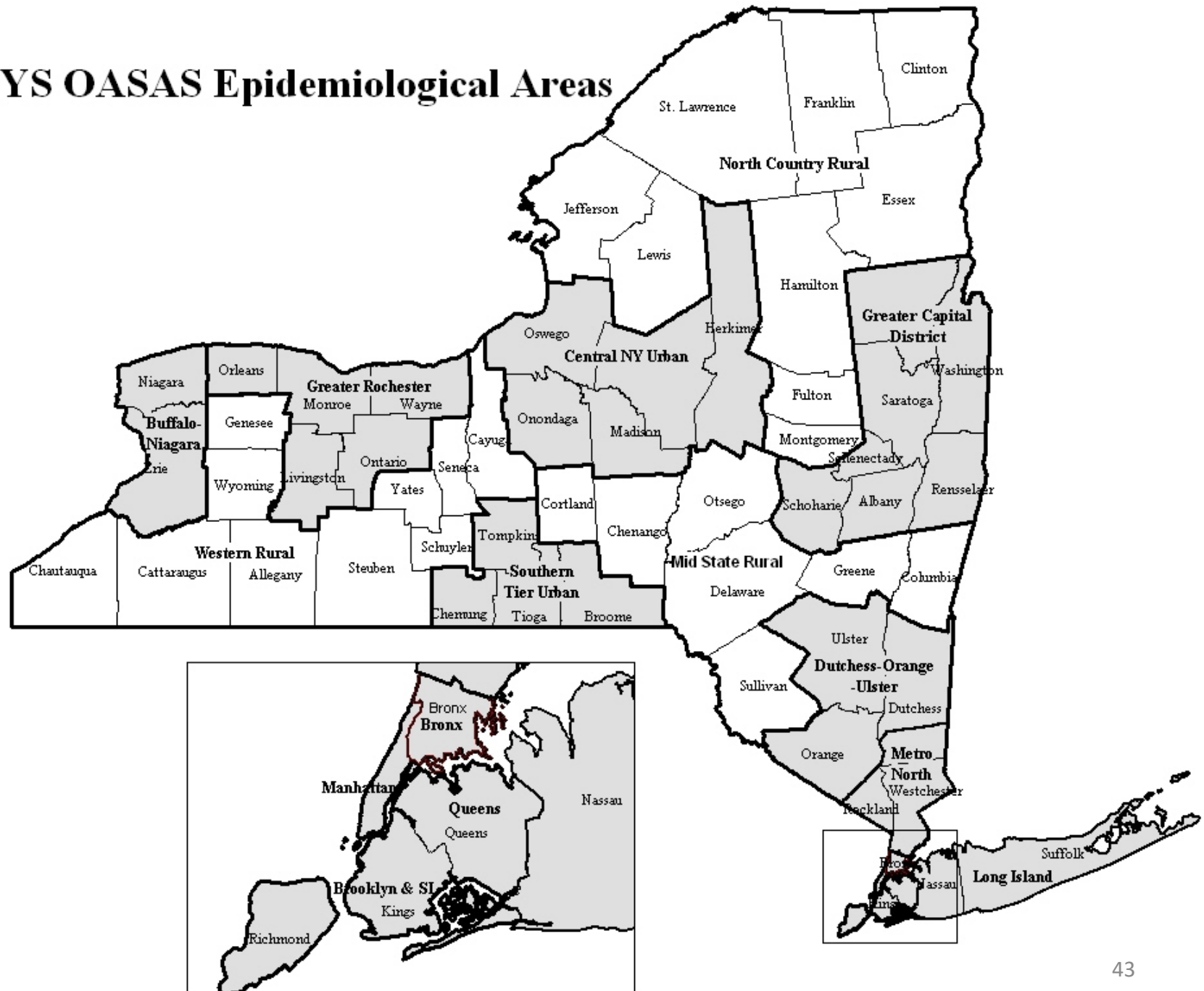
C. Upstate Metropolitan Region

8. Greater Capital District (Albany, Rensselaer, Saratoga, Schenectady, Schoharie, Warren, Washington)
9. Central NY Urban (Herkimer, Madison, Oneida, Onondaga, Oswego counties)
10. Southern Tier Urban (Broome, Chemung, Tioga, Tompkins counties)
11. Greater Rochester (Livingston, Monroe, Ontario, Orleans, Wayne counties)
12. Buffalo-Niagara Falls (Erie, Niagara counties)

D. Rural New York Region

13. Mid-State Rural (Cayuga, Chenango, Columbia, Cortland, Delaware, Greene, Otsego, Sullivan counties)
14. North Country Rural (Clinton, Essex, Franklin, Fulton, Hamilton, Jefferson, Lewis, Montgomery, St. Lawrence)
15. Western Rural (Allegany, Cattaraugus, Chautauqua, Genesee, Schuyler, Seneca, Steuben, Wyoming, Yates)

NYS OASAS Epidemiological Areas



Comparison to National Rate






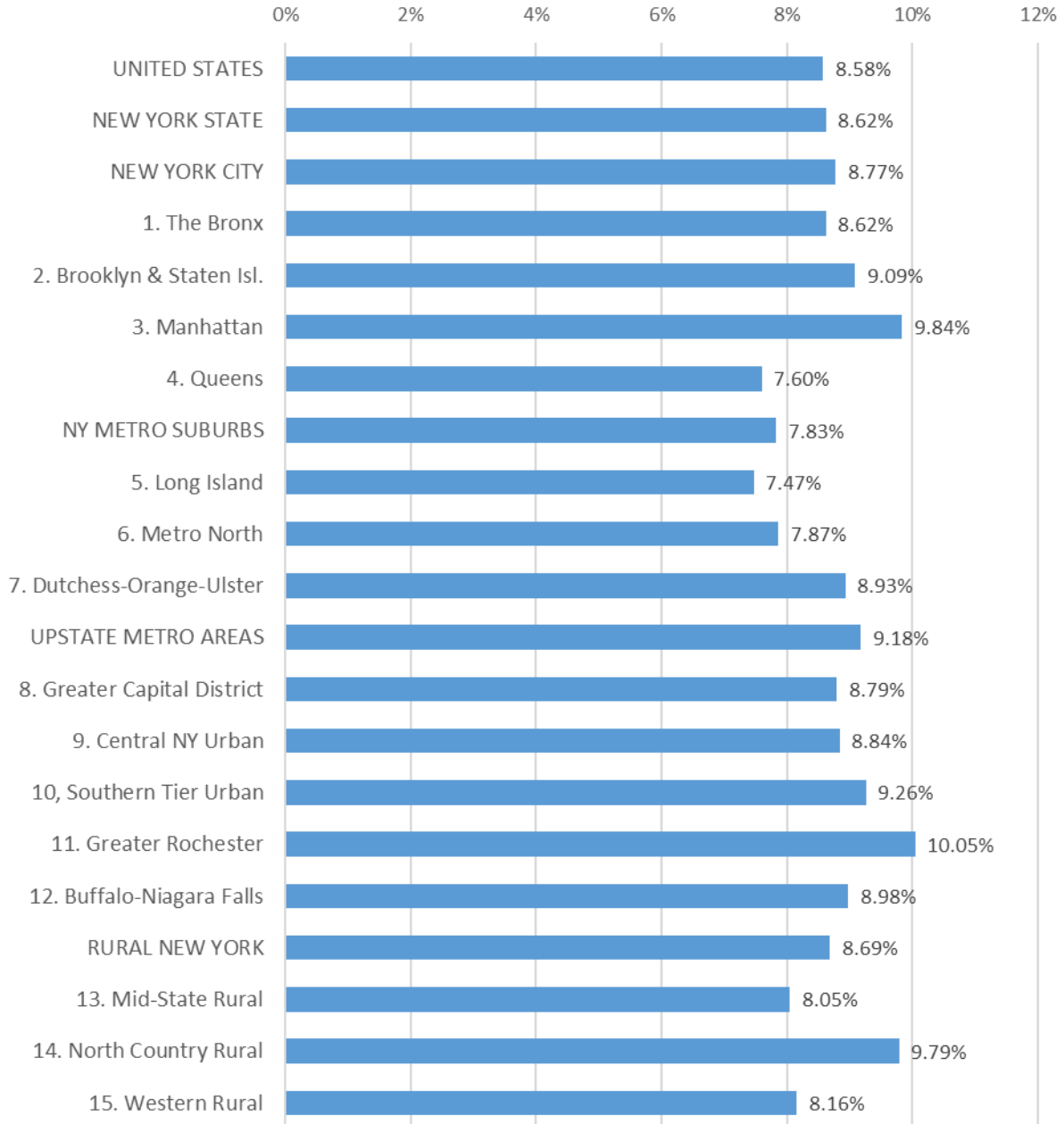
	Less than	10.0% or more <u>lower</u> than National Rate
	About the same	Less than 10.0% lower or higher
	Somewhat higher	10.0% to 19.9% higher than National Rate
	Substantially higher	20.0% to 29.9% higher than National Rate
	Much higher	30.0% or more higher than National Rate

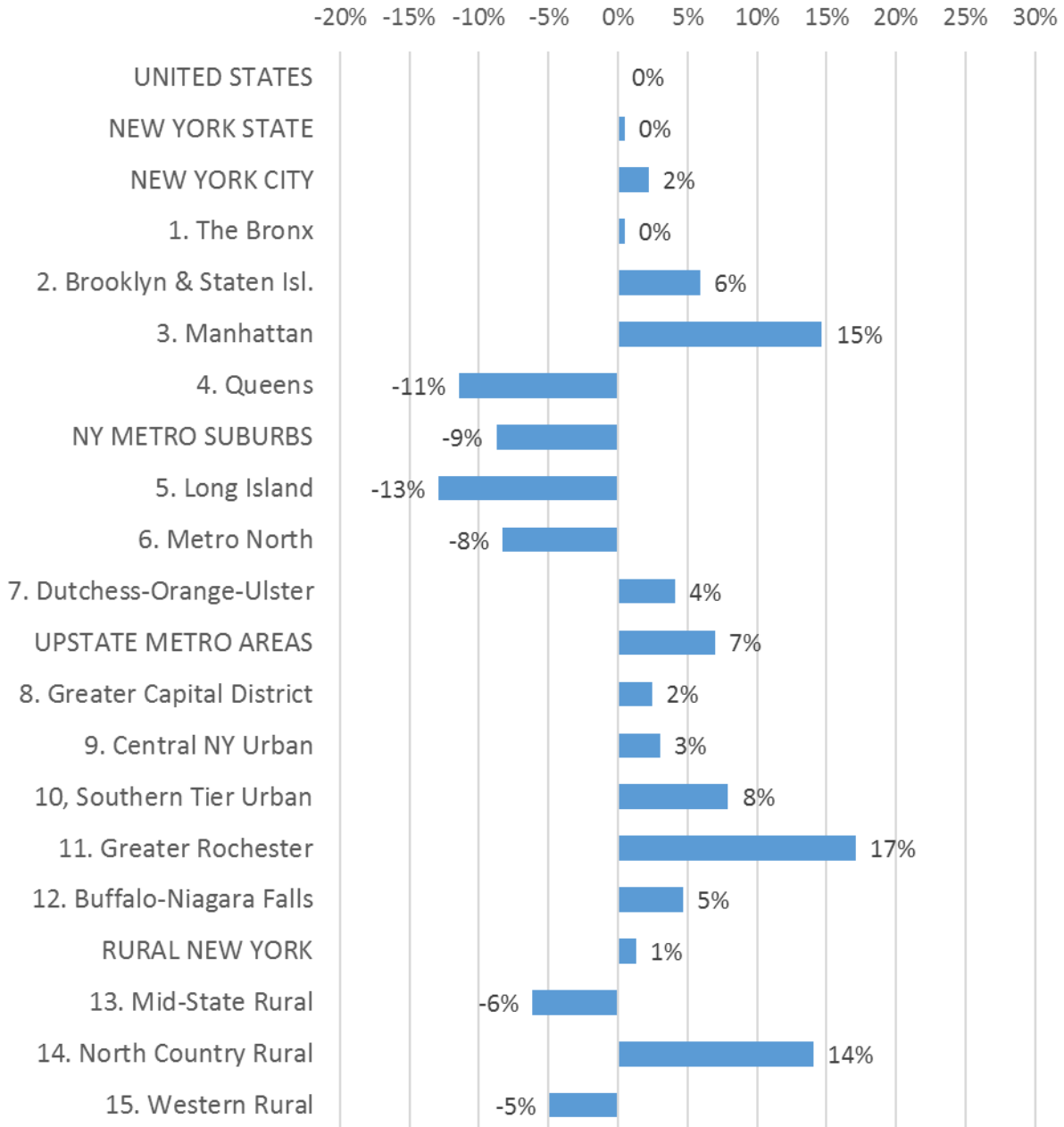
Table 1: Substance Use Disorder (SUD) in the Past Year, by Age Group and Epidemiological Areas: Percentages, Annual Averages Based on 2010, 2011 and 2012 NSDUHs

Nation, New York State and Epidemiological Areas	Prevalence Rates			Compared to National Rate		
	All Adults, Age 18+	Young Adults Age 18-25	Adolescents Age 12-17	All Adults, Age 18+	Young Adults Age 18-25	Adolescen Age 12-17
	percent	percent	percent	%difference	%difference	%difference
US Total (National Rate)	8.58%	19.11%	6.77%	0%	0%	0%
New York State	8.62%	18.69%	6.70%	0%	-2%	-1%
New York City	8.77%	17.53%	7.04%	2%	-8%	4%
1 The Bronx	8.62%	15.19%	6.25%	0%	-21%	-8%
2 Brooklyn & Staten Isl.	9.09%	18.62%	7.84%	6%	-3%	16%
3 Manhattan	9.84%	18.56%	6.82%	15%	-3%	1%
4 Queens	7.60%	16.82%	6.58%	-11%	-12%	-3%
NY Metropolitan Suburbs	7.83%	20.07%	6.77%	-9%	5%	0%
5 Long Island	7.47%	20.09%	6.64%	-13%	5%	-2%
6 Metro North	7.87%	19.62%	6.46%	-8%	3%	-5%
7 Dutchess-Orange-Ulster	8.93%	20.61%	7.71%	4%	8%	14%
Upstate Metropolitan Areas	9.18%	19.82%	6.24%	7%	4%	-8%
8 Greater Capital District	8.79%	20.51%	6.38%	2%	7%	-6%
9 Central NY Urban	8.84%	18.61%	6.23%	3%	-3%	-8%
10 Southern Tier Urban	9.26%	17.68%	6.16%	8%	-7%	-9%
11 Greater Rochester	10.05%	21.53%	6.78%	17%	13%	0%
12 Buffalo-Niagara Falls	8.98%	19.76%	5.64%	5%	3%	-17%
Rural New York	8.69%	17.52%	6.17%	1%	-8%	-9%
13 Mid-State Rural	8.05%	17.11%	6.29%	-6%	-10%	-7%
14 North Country Rural	9.79%	18.25%	6.16%	14%	-5%	-9%
15 Western Rural	8.16%	17.11%	6.07%	-5%	-10%	-10%

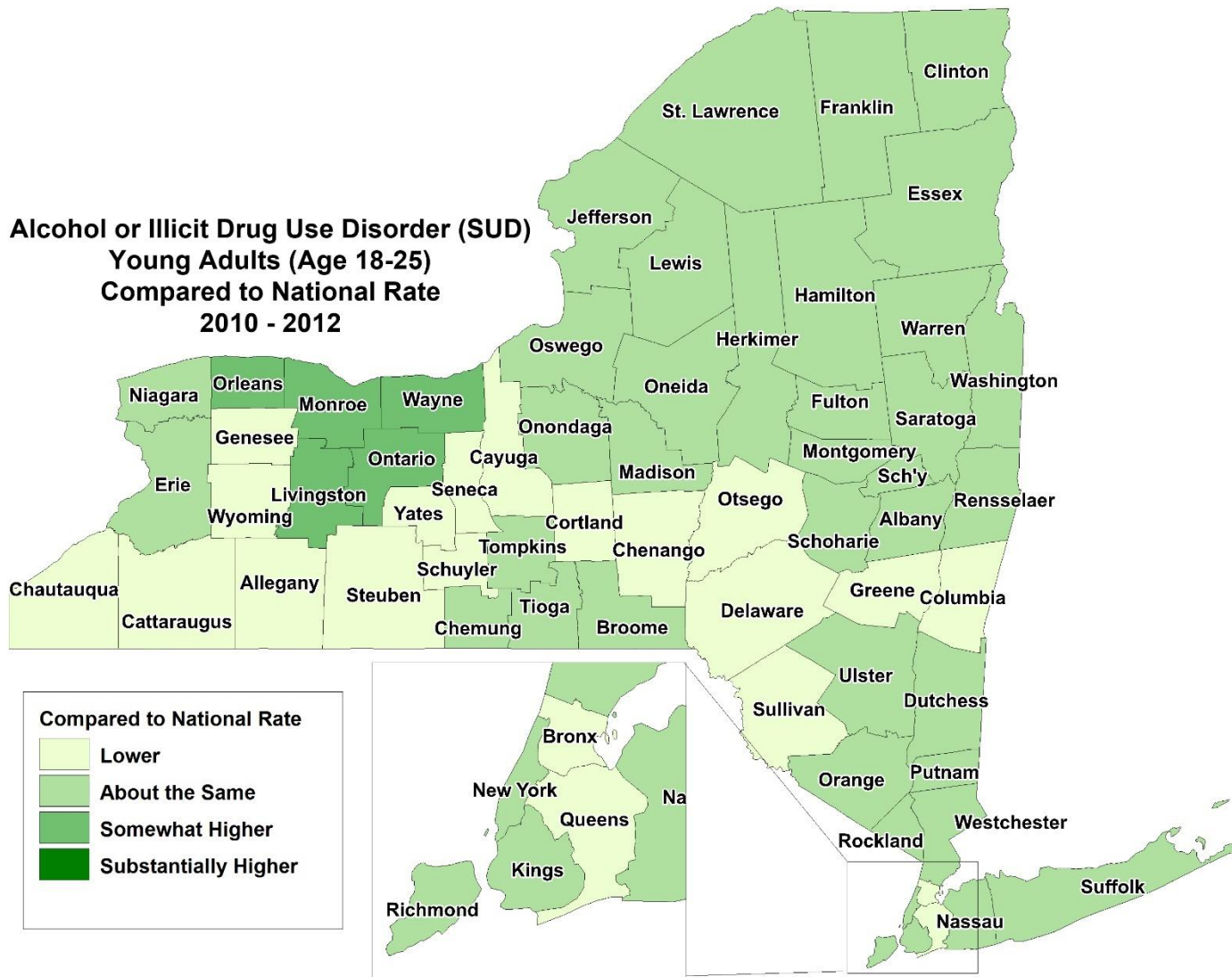
Alcohol or Illicit Drug Use Disorder Among Adults (Age 18+) by New York State Epidemiological Area, NSDUH Survey 2010-2012



**Alcohol or Illicit Drug Use Disorder Among Adults (Age 18+) by New York State Epidemiological Area Compared with National Rate (8.58%),
NSDUH Survey 2010-2012**



**Alcohol or Illicit Drug Use Disorder (SUD)
 Young Adults (Age 18-25)
 Compared to National Rate
 2010 - 2012**



**Alcohol or Illicit Drug Use Disorder (SUD)
Adolescents (Age 12-17)
Compared to National Rate
2010 - 2012**

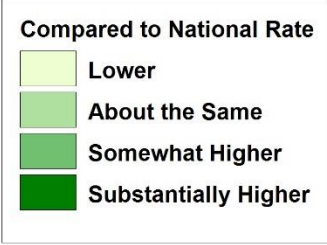
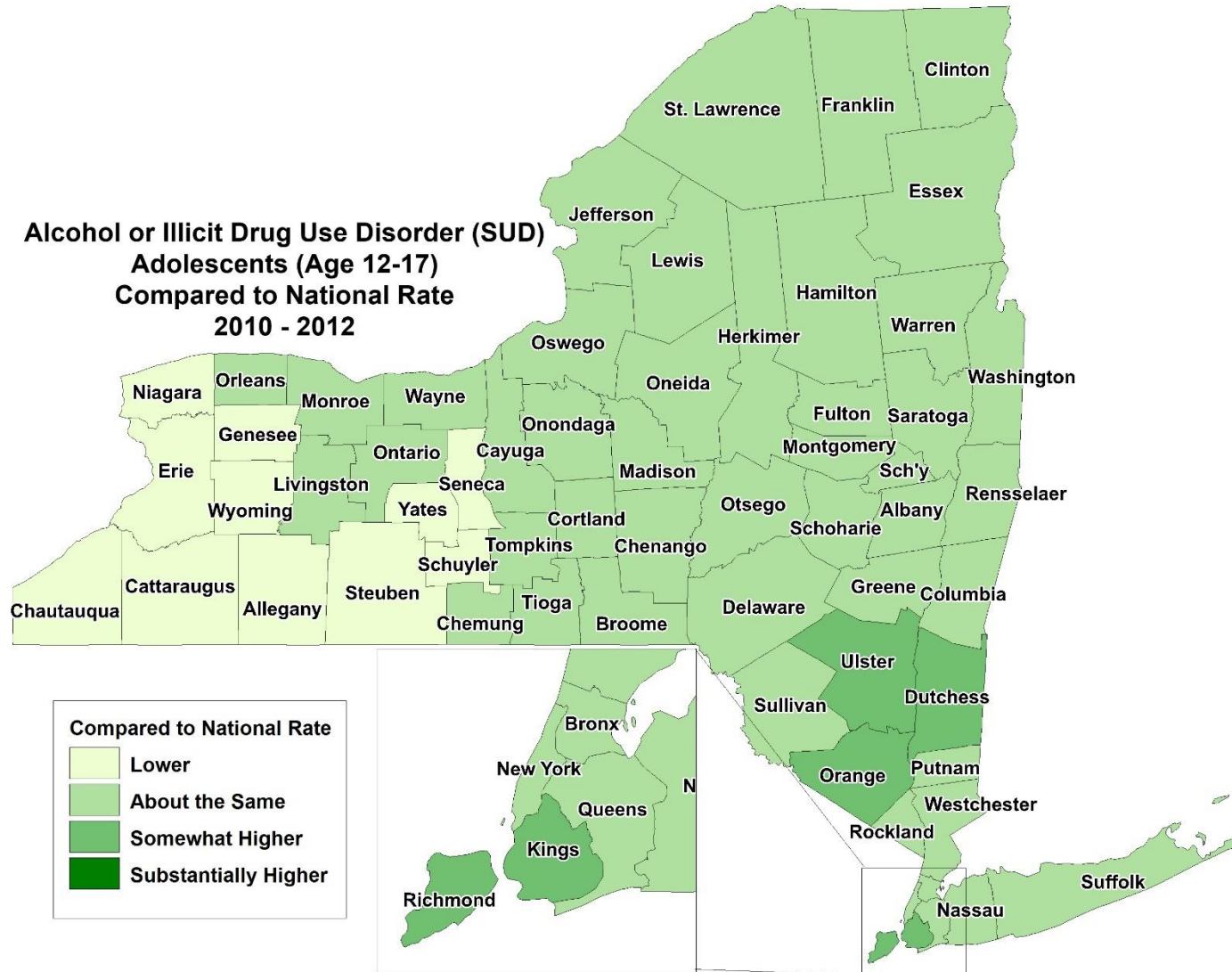


Table 6: Any Mental Illness in Past Year among Persons Aged 18 or Older, by Age Group and Epidemiological Areas: Percentages, Annual Averages Based on 2010, 2011 and 2012 NSDUHs

Nation, New York State and Epidemiological Areas	Prevalence Rates			Compared to National Rate		
	All Adults, Age 18+	Young Adults Age 18-25	Adolescents Age 12-17 **	All Adults, Age 18+	Young Adults Age 18-25	Adolescen Age 12-17 **
	percent	percent	percent	%difference	%difference	%differenc
US Total (National Rate)	18.13%	18.75%	na	0%	0%	na
New York State	18.94%	18.85%	na	4%	1%	na
New York City	18.76%	18.46%	na	3%	-2%	na
1 The Bronx	19.49%	17.36%	na	8%	-7%	na
2 Brooklyn & Staten Isl.	19.09%	18.00%	na	5%	-4%	na
3 Manhattan	20.13%	21.00%	na	11%	12%	na
4 Queens	16.87%	17.81%	na	-7%	-5%	na
NY Metropolitan Suburbs	18.12%	18.39%	na	0%	-2%	na
5 Long Island	17.71%	18.20%	na	-2%	-3%	na
6 Metro North	18.63%	17.77%	na	3%	-5%	na
7 Dutchess-Orange-Ulster	18.69%	19.76%	na	3%	5%	na
Upstate Metropolitan Areas	19.77%	19.82%	na	9%	6%	na
8 Greater Capital District	19.06%	19.20%	na	5%	2%	na
9 Central NY Urban	19.71%	20.18%	na	9%	8%	na
10 Southern Tier Urban	21.70%	21.62%	na	20%	15%	na
11 Greater Rochester	20.75%	19.69%	na	14%	5%	na
12 Buffalo-Niagara Falls	18.81%	19.24%	na	4%	3%	na
Rural New York	19.99%	19.18%	na	10%	2%	na
13 Mid-State Rural	19.93%	19.44%	na	10%	4%	na
14 North Country Rural	20.04%	19.45%	na	11%	4%	na
15 Western Rural	19.99%	18.65%	na	10%	-1%	na

** The survey does not collect this information for adolescents

Thank You!

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http://arc-associates.net/community_needs_assessment/new_york_cna